Course Syllabus: Web Design Principles for Educators

This syllabus is presented as a single Web page so that you may easily print it if needed for your reference (Printer Friendly Version). The following sections are included within and can be assessed by clicking on each section:

WELCOME

I want to start by saying hello to everyone in the course. I hope that we will all find this course very informative and helpful. This is not a course on programming HTML, rather it is a course on the principles of Web Design. The goals of this course are to introduce educators to Web design principles that can be applied to their own course Web pages, to provide guidance on the process of planning the design of Web sites, and to observe good practices of Web design by evaluating other educational Web sites. The course also provides a model for educators who are or will be teaching online, and allows the educator to experience online education from the student's perspective. **Please note that there are no textbooks required for this course. All materials are available online!**

TOP

TECHNICAL SUPPORT

If you experience technical problems, please consult the FAQ section of the course first. If you don't find a "fix", contact the instructor (see above for contact information) or you can contact Kevin Johnson, this course's assigned Technical Assistance Advisor at (217) 265-8177 or kejohns@uillinois.edu

TOP

COURSE INFORMATION

Who should take this course?

The Web Design Principles for Online Educators is primarily for those planning to create an online course or who would like to improve an existing online course, course component, or Web site. Whether you are an experienced Web page creator or have never created a Web page in your life, you can benefit from this course because it focuses on the process and principles of Web design with the online instructor in mind.

(Please note that this is NOT an HTML course, although it does include an introduction to HTML.)

Content Delivery-

The course has a modular structure consisting of somewhat separate units. Each unit is individually assessed, but successive units build on previous information. The course pedagogy is based on collaborative learning and group participation. Content in the form of active asynchronous and synchronous chat participation, direct email, postings of materials, online resources, and instructor notes will be presented. Content in the form of student participation in discussion forums and comments on the ideas and work of others will also be present. Discussions will be prompted throughout the course. Links to outside sources will be required through which students will acquire more in depth information on some topics.

What are the topics?

• HTML Basics
• Planning a Web site and developing a "design document" that serves as a blue print for designing future course sites.
• Design Guidelines
• Various Usability and Accessibility Concerns with Online Educational Web sites.
• Evaluating Quality Web sites

What is the workload?

This is an intensive course requiring 8-10 hours of work per week.

TOP

COURSE GOALS

After completing this course, learners will be able to:

1. Create a design plan for an educational web site defining the goals and objectives of the web site, the audience, and content elements, (synthesize)
2. Determine essential elements of an educational web site, (organize)
3. Describe at least 20 web design guidelines, (comprehends meaning)
4. Understand usability and disability issues in educational Web design, (apply)
5. Give examples that demonstrate specific web design guidelines. (apply)
6. Critique the design of educational web sites based on good web design principles and practices. (evaluate) as judged by successful completion of the assessment instruments used with the course.

TOP

COURSE EXPECTATIONS

You will be asked to undertake these activities to help you to learn the subject matter of this course.

- Read all assigned articles
- Participate in online discussions

- Participate in a group project
- Complete module activities in a timely manner
- Meet w/your instructor at least twice synchronously throughout the course
- Log in at least 4 times a week if not more

You are expected to spend a *minimum* of 10 hours per week participating in this course, which includes reading the articles, participating in online discussions, and completing the activities. This course is designed along the principles of synergy and collaborative learning. Participation is therefore a major part of the overall grade.

You will be expected to attend a minimum of two live synchronous sessions, once as an individual and once as a part of your group project. These sessions will be set at times that are mutually agreed upon by all participating members. These sessions will be held using a variety of technology depending on individual/group preferences and technical requirements. Technologies include Elluminate, Skype, and telephone. Attending one of Kevin's Virtual Office Hours can count as your 1-on-1 meeting; however, it will not count towards your group meeting.

TOP

COURSE COMMUNICATION

Several forms of communication will be used during this course.

Discussion Forum

The discussion forum is the heart of this online course. It is where you will discuss your work with your classmates, communicate with your group members, and post several assignments.

Chat

For more extended synchronous discussions among multiple class members, we will use Moodle's chat tool. Additionally, live meetings using Elluminate, a real-time conferencing program, may be scheduled. Elluminate will be used for Kevin's Virtual Office Hours.

E-mail

As an alternative to the forum, personal email can be used for communication with your instructor and your classmates. Course participants can also use their individual e-mail services to communicate with the instructor and each other privately.

Skype

Skype is Voice-based synchronous tool that allows us to have conversations with up to 5 people at a time. It also has chat and web cam functionality.

Messages

You can use the instant messaging function to send messages to classmates and the teacher when they are online. This is a synchronous function when used this way. When the person you want to contact is offline, the message sent will be posted as an internal email (asynchronous). Make sure this "offline" function is set in your settings.

Telephone

The telephone is still sometimes the most effective mode for troubleshooting technology problems or other issues related to the course. Your instructor's phone number and other contact information can be found in the Instructor's Office section of the course.

TOP

COURSE OVERVIEW

The course is divided into six sections, an orientation and five content modules. Each has the same components: an introduction, readings, assignments (individual and group- module 2) and a survey evaluation to be completed.

TOP

ORIENTATION

Hello, and welcome to the course. Studies show that students who participate in an online orientation prior to the beginning of their course have a much more fulfilling and successful online learning experience. Thus, all MVCR courses have an orientation associated with them. This orientation will familiarize you with your course structure and the course management system as well as the other students in the course. It is intended to help you complete your online course with greater ease and confidence. You should have completed this Orientation Course by this time, but if you haven't, please visit the Orientation Course, which you can get to from your login Homepage, and complete the necessary activities within the course.

Introduce Yourself

The purpose of the bio activity is two-fold. First, the assignment allows each of us to learn a little about each other. In addition, the assignment gives you a chance to be exposed to the discussion component of Moodle.

For this exercise briefly introduce yourself by posting a brief bio in the Orientation: Bio Activity forum. You should include information about your experience learning or teaching online, why you are taking this course, and the content area you are planning to teach online. You can include information about your background, family, interests outside of teaching, and even attach a photo if you wish.

Also, you should tell one or two pieces of knowledge that you would like to get out of this course.

Icebreaker Activity

For this activity, I want everyone to post three truths and one lie about yourself inside the Orientation: Icebreaker Activity forum. Once others have posted their four statements, make a guess at the lie on at least 2 other students' posts.

We will reveal our lies at the end of the orientation period.

Orientation Quiz

Complete the Orientation: Quiz activity, which covers the basic setup of the course. I don't expect you to memorize all of the information covered in the quiz, so please feel free to look back at the course documents to find the answers. Good luck!

TOP

MODULE 1 – HTML BASICS

Module Goals

The goal of this lesson is to introduce students to the basic concepts of HTML. Although this is by no means a comprehensive HTML course, it is important that you at least understand the basics before you get into the design of a site. Thus, this first module will look over the basics of HTML. From an assignment standpoint, this module is somewhat simple. You begin by running through an online HTML basics tutorial and then complete a simple assignment. If you are already familiar with HTML, this module will seem exceedingly simple, but it will take some time to complete if you are completely new.

Module Goals

After completing this module, you will be able to

- Describe the basic layout of an HTML document,
- Construct a basic HTML document, and
- Understand what can be done within HTML

Time Estimates and Due Dates

It should take approximately 1-10 hours to complete this module depending on your background. This is a .5 week module that will be available starting in the middle of the orientation week for those that need more time. All due dates for the assignments in this course are posted in the Course Calendar that is linked from the Home Page and the Course Menu above.

Office Hours

During the instructor's Virtual Office Hour, the instructor will be available for questions and comments. Attendance is optional but advisable, especially if you are new to the materials of this module.

Readings

There is only one reading in this module, but it is rather extensive.	
1.	**Web Monkey HTML Basics** http://hotwired.lycos.com/webmonkey/teachingtool/index.html One of the best online tutorials for HTML basics in my humble opinion is the Web Monkey HTML Basics Authoring page found at . Go to the site and read the links for "basic HTML concepts" and "HTML Cheat Sheet". Then go to the "learn" page. On the "Learn" page, do not follow any of the links in the introductory readings. Instead, read the text and then follow all of the links in the "Learn More" section at the bottom. Ignore the sections

for "Headlines", "Teletype", "Blink", "Preformatted text", and "Definition lists".

TOP

MODULE 2 - PLANNING A WEB SITE

Each Module in this course has several activities that deal with various aspects of Web design. In this Module, we will be taking a look at the early design process. The elements that go into the creation of an effective design document and how that document can be applied to a Web designs will be discussed. Several discussion questions are included as well to prompt you towards the creation of your own design documents.

Before creating a Web site or redesigning an old one, it is helpful to *establish the goals and objectives* of the site, *identify the audience* of the site, and *determine the content* that should be included in the site. Without at least considering these three factors, the Web site is often poorly designed and thus ineffective. In this module, we will work through the process of design by first looking at these 3 factors. Following a selection of readings, you will answer discussion questions and create a design document that you can use to define the design of a Web site of your choosing.

Module Goals
After completing this module, you will have:

- Clear understanding of the design process for web sites
- Paragraph describing the goals and objectives of your web site
- Written profile of your target audience.
- Written scenario of an online student.
- List of content elements that will be included in your site .

Time Estimates and Due Dates

It should take approximately 10 - 12 hours to complete this module's readings and activities. This module lasts 1.5 weeks. All due dates for the assignments in this course are posted in the Course Calendar that is linked from the Home Page and the Course Menu above.

Office Hours

During the instructor's' Virtual Office Hour, the instructor will be available for questions and comments. Attendance is optional but advisable, especially if you are new to the materials of this module.

Readings

Read the following 6 resources.

The first two readings assigned, Purpose of the Site and Design Strategies describe the first step in designing a Web site: defining the goals and objectives. These texts are excerpts from Yale's Web Style Guide which is also available as a published text. If you have the time, I encourage you to look through the entire site. The third reading, Crafting the User Experience, asks us to consider the needs of the user and presents two key elements in the design process: user profiles and user scenarios. The final three reading from Webmonkey's Information Architecture Tutorial take us step-by-step through the web design process, helping us to create a design document.

1.	**Web Style Guide: Planning (3 pages)** http://webstyleguide.com/process/plan.html
2.	**Web Style Guide: Develop a site specification (3 pages)** http://webstyleguide.com/process/specify.html
3.	**Webmonkey's Crash Course in Information Architecture: Lesson 1 (4 pages)** http://www.hotwired.com/webmonkey/templates/print_template.htmlt?meta=/webmonkey/98/28/index0a_meta.html
4.	**Webmonkey's Crash Course in Information Architecture: Lesson 2 (5 pages)** http://www.hotwired.com/webmonkey/templates/print_template.htmlt?meta=/webmonkey/98/28/index1a_meta.html
5.	**Webmonkey's Crash Course in Information Architecture: Lesson 3 (3 pages)** http://www.hotwired.com/webmonkey/templates/print_template.htmlt?meta=/webmonkey/98/28/index2a_meta.html
6.	**Designing the User Experience (7 pages)** Reading 3 Notes by Instructor. This resource is no longer available online, so I have included my own brief notes hitting the important points in my own notes. You will find these notes below. **Reading 3 - Notes from "Web Navigation: Designing the User Experience" by Jennifer Fleming** 1. Putting yourself in the user's shoes. Analyze the students' goals as well as your own. Understand that the students' goals may differ from your own. 2. Create User Profiles. Once you know or hypothesize the users' goals, create profiles of these potential users. In this way, you do not generalize too much about your students, but understand that you will have a variety of users. Try to find the similarities though and design to those strengths and or weaknesses. 3. Think in scenarios Thinking in scenarios can offer you a view of the navigation process that a potential user might take. Insure that the potential navigation processes will lead to information that makes sense and can be observed within the proper context. [Virgil likes to call this circular Web logic. That is, assume that the student may enter any page on the site at any given time without knowledge of any other page. Therefore, linking must develop some form of redundancy in affordances.] Believe it or not, that's about all that was contained in this reading. The main emphasis is to remember the student in the design process and to remember that multiple entry and exit points exist on the Web (it is not read as a book.)

TOP

MODULE 3 - PLACING AND DEFINING CONTENT

In this module, we move beyond the early design process and into the quality of elements and their placement within a Web page/site. We begin with guidelines for good Web design that you then develop into a Web design checklist that will be used when we get to evaluating resources in the next Module.

We'll begin by defining what is meant by a "Web page element". When you look at a Web page that is presented inside a browser window (e.g. Netscape), you usually see a collection of images, text, and links. Additionally, multimedia elements such as audio and video may also be present. These are examples of elements. The Web page designer has the ability to change the appearance of these images, text, and links.

Each element has a set of attributes. In this context, attributes are the specific qualities and characteristics of the element that can be changed. For example, a paragraph, which is a text element, has the following attributes: color, text size, text font, location, among others.

Most Web page elements can be placed into certain categories. This week, we are going to discuss guidelines that apply to these categories.

Module Goals
Upon completion of the readings and exercises, you will have:

- a clear understanding of the various Web page elements,
- a list of online Web design resources that they can refer to in the future,
- a better understanding of good Web design principles, and
- a written checklist of guidelines for each category of Web page element.

Time Estimates and Due Dates

This module should take from 8 - 10 hours to complete depending on how in depth the answers. I would recommend spending some time reading the postings of classmates and replying if there is something to add to the thread. All due dates for the assignments in this course are posted in the Course Calendar that is linked from the Home Page and the Course Menu above.

Office Hours

During the instructor's' Virtual Office Hour, the instructor will be available for questions and comments. Attendance is optional but advisable, especially if you are new to the materials of this module.

Web Design Elements

I have chosen to focus on categories of elements (e.g. Text) and not the specific elements themselves (e.g. lists) because we all have different backgrounds and experiences when it comes to creating Web pages and knowledge of HTML. I have found that anyone, regardless of experience with HTML, can discuss design principles about the categories, but it is somewhat difficult to talk about elements such as lists, layers or frames if you haven't worked with HTML. The categories are important because knowledge of the principles for each category help the learner to develop more effective and usable Web sites.

The categories to be discussed are:

Overall Page Layout:	This category deals with how elements are organized in a page. Attributes such as Page Size, White Space, Balance, and Consistency should be considered. Some elements that affect the page layout are tables and frames.

Text:	Here we are concerned about the format of the words on the page. Size, Font, Color, Positioning are all examples of attributes that can be controlled by the web page designer. Examples of specific text elements include paragraphs, headers, and lists.
Links:	Links, or hypertext, are usually made of words, but can also be composed of images, and areas in images. While this category shares many of the same attributes with text, there are some unique attributes of links that one must take into account. For example, the text used in links, the amount of links included in the page, and consistency should be considered.
Graphics:	Graphics usually refer to an image (e.g. a .gif or .jpg file) and can include photographs, clip art, and animations. Attributes of this category include Size, Quality, Alignment, and Border.
Color:	Color is an important attribute for text elements, link elements, page layout elements. Color choices are extremely personal, but attributes such as contrast, browser-compatibility, and meaningful-use should be considered seriously.
Performance:	This category is more technical in nature, but decisions made by the web page designer have significant impact in the performance of web page and should not be overlooked. Attributes include Browser compatibility, Download time, Plug-In requirements, and Accessibility.
Navigation:	There are whole books written on Web navigation and it is difficult to design an easily-navigated site. The elements categories that affect navigation include page layout, text, and graphics. Attributes to consider include: location of navigation links, consistency of navigation links, and types of navigation links.
Content:	Principles related to this category apply to the text contained in the web pages. Of course, the content of each web site will differ, based on the goals and objectives of the site. But there are some types of information (text) that should be included on every page. Some examples of required content include feedback information, copyright information, document information. Attributes of content include: spelling, relevancy, and accuracy.
Accessibility	In the context of web design, accessibility refers to the ability of people with disabilities to access the content contained in Web pages using tools such as text readers and text-to-Braille translators. Being able to discuss principles related to designing accessible pages usually requires some knowledge of HTML.

These categories are not mutually exclusive. A design principle or guideline often fits into more than one category. For example, the guideline that "web pages should be designed to accommodate text-only and non-table browsers" could be related to the "Overall Page Layout" category, "Accessibility", AND the "Performance" category.

TOP

MODULE 4 – USABILITY AND ACCESSIBILITY

All of the other modules in this course directly guide you down the design process. This section deals with topics that are important throughout the design process, namely usability and accessibility. Especially with federal requirements on accessible Web design, this module is of vital importance to your knowledge of Web design. As you read more about Web design, you will find that there are often several pathways that your design can take yielding somewhat different products. Not all products are necessarily equally suited to a given task, and sometimes, a design that makes perfect sense to the designer or content expert, is not intuitive to the end user. The purpose of this part of the module is to introduce you to these concepts and how they can be taken into account during your Web designs. The topics are placed in a single module because accessibility is itself an aspect of usability directed at a particular audience.

This module is divided into an usability and an accessibility section. During the usability section, you will learn the overall fundamentals of usable Web design. Usability refers to how easy it is for the user to navigate through a site without misunderstandings or frustrations, among other things. Accessibility refers to how well those with any of a number of disabilities can view the materials on your site. Together, they may limit your Web design options, but in so doing, they lead you towards a better overall design.

Module Goals
After completing the readings and assignments in this module, you will,

- Understand the importance of accessibility through exposure to the federal guidelines,
- Understand usability issues as judged by their participation in an online discussion, and
- Be able to utilize accessibility tools such as Bobby to determine whether a site is accessibly by submitting their results from running the tool on a site of their choosing.

Time Estimates and Due Dates

This module should take approximately 8-15 hours to complete. This is a 1.5 weeks module. All due dates for the assignments in this course are posted in the Course Calendar that is linked from the Home Page and the Course Menu above.

Office Hours

During the instructor's' Virtual Office Hour, the instructor will be available for questions and comments. Attendance is optional but advisable, especially if you are new to the materials of this module.

Usability Readings

1.	**All Thins Web** The Usable Web, 1996-8, Terry Sullivan http://www.pantos.org/atw/usable.html 1. Value of Usability 2. User Testing Techniques 3. Hidden Keys to Reader Friendlines Read through Heuristic Evaluation. Also read his article on greeked templates at http://www.useit.com/alertbox/980517.html.
2.	**Useit.com** Jakob Nielsen's Web site http://www.useit.com/
3.	**Optional Reading** If interested, the following list of supplemental readings contain additional valuable information on usability testing. • Usability Testing, Karen Lemone, http://www.cs.wpi.edu/~kal/netpub/NPmodule7.html • Testing Methods and Tools, University of Maryland, http://www.otal.umd.edu/guse/testing.html

Accessibility Readings

1.	**Accessible Online Course Design** Virgil Varvel, ION's Pointers and Clickers, 2000 http://www.ion.illinois.edu/resources/pointersclickers/2000_12.html
2.	**Creating Printer-Friendly Documents for Your Online Course** Michael Lindeman, ION's Pointers and Clickers, 2001 http://www.ion.illinois.edu/resources/pointersclickers/2001_01/index.asp
3.	**Making Educational Software and Web Sites Accessible** National Center for Accessible Media http://ncam.wgbh.org/cdrom/guideline/
4.	**Accessibility in Distance Education** University of Maryland University College http://www.umuc.edu/ade/

TOP

MODULE 5 - PUTTING IT ALL TOGETHER

In this last Module, we will take the products of earlier Module activities and use them to aid our evaluation of various Web resources. The intent is manyfold. It gives you a chance to see what others have done towards creating their course Web sites; it gives the guest course creator a chance to receive valuable feedback; it gives you the opportunity to use your evaluation tools so that you can better develop them for your own Web site evaluation; and it provides a way to tie together everything that I hope you've learned so far in the course.

In this module, you are going to use the Web Design Document (created in module 2) and the Guidelines Checklist (created in module 3) to create an Evaluation Instrument. With this instrument you will evaluate 2 Web sites. You will then have an opportunity to have a "virtual" discussion with the designer/instructor of the Web sites you evaluated.

The module begins with some readings consisting of evaluation instruments used to review a Web site's design. By looking at these resources, you will see how other people have approached evaluation of web design. This activity will help to prepare you for the next activity in this module.

Then you will synthesize your Web Design Document with your Design Guidelines Checklist to create an Evaluation Instrument similar to those in the reading above or following your own design. When evaluating the design of a Web site, it is important to consider the goals and objectives, the target audience, and the content elements we discussed in module 2, in addition to the page layout, text, links, etc. guidelines we discussed in module 3 and 4.

During the last three days of this course, you will have the opportunity to ask the designers/instructors of the sites you have evaluated questions and to read their responses. This is a great opportunity to pick up some advice from peers who have sites up and running.

Module Goals
Upon completion of the readings and assignments, you will

- have a better understanding of what makes a "good" Web site through evaluation instrument design,
- be able to evaluate a Web page's design, and
- have a clear idea of how they want their Web pages to look.

Time Estimates and Due Dates

This module should take approximately 10-15 hours to complete. It may take more if a student gets really into the various policies. This is a 1.5 week module. All due dates for the assignments in this course are posted in the Course Calendar that is linked from the Home Page and the Course Menu above.

Office Hours

During the instructor's' Virtual Office Hour, the instructor will be available for questions and comments. Attendance is optional but advisable, especially if you are new to the materials of this module.

Readings

I would like you to look at the evaluation tools listed below. These can serve as a model for your Evaluation Instrument Assignment that you will create and use later on in this module. After looking at the three evaluation instruments, post a message in the Module 5 - Resource Assignment discussion forum stating which of the three you find to be most useful and briefly explain why.	
1.	**WWW CyberGuide Ratings for Web Site Design** http://www.cyberbee.com/guides.html
2.	**Rubric for Classroom Web Pages** http://www.uwstout.edu/soe/profdev/webpagerubric.html
3.	**"Good Sites: A rubric for evaluating student sites"** http://lrs.ed.uiuc.edu/students/srutledg/goodsites8.html

TOP

COURSE ASSESSMENT

Presently, this course has no exams. Assessment procedures are important to articulate so that participants will gain the most benefit from the course. With this in mind, the following assessment criteria apply to this course:

This course is offered in several forms depending on how you registered. It is for 2 hours of credit for those registering as students through the University of Illinois at Springfield or for continuing education unit credit as part of the Illinois Online Network or University of Illinois Department of Outreach. In order to receive such credit for the course (a C grade), you must earn at least 70% of the total possible points (200). The following table outlines the point totals for assignments in the course. The instructor may change these totals if necessary due to the makeup and dynamics of the given course. Rubrics are also provided as a guide for how the assignment may be graded, although the instructor may also change these depending on the needs of the course. The changes should be minor though, so these documents should offer a very good idea of assessment criteria in the course.

Assignment	Points
Orientation: Bio Activity	5
Orientation: Icebreaker Activity	5
HTML Basics Activity	15
Online Course DQ Activity	15
Design Document Activity	15
Web Design Guidelines Activity	15
Web Design Checklist Activity	10
Usability Discussion Question Activity	10
Accessibility Activity	15
Evaluation Instrument Activity	20
Web site Critiques Activity	10
Key Points / Reflections	15 (3 points/per)
Participation	35
Total	**200 Points**

Assignments, activities, and class participation will be graded according to criteria specified in the rubrics listed on the Course Assessment Page.

TOP