Lakeside View Global Vision
CEGEP JOHN ABBOTT COLLEGE

(420-P75-AB) Website Design

Certificate Program in Internet Programming & Development (A.E.C. LEA.BN)
Full-Time Day Training Program

Course Name:	PHP Programming				
Course Number:	420-P75-AB				
Course hours:	75	Course Weighting:	2-3-3	Number of Credits (Units):	2.00
Pre-requisite:	(420-PZ4-AB) Programming II – Object-Oriented Programming, (420-P14-AB) Database I				
Competencies Partially Met:	DC74 – Use PHP language to create dynamic web pages with an SQL database backend				
Contact Information:	**The instructor can be reached from the email tool within JAC Portal Services**				
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PHP Final Project

Advanced Web Site Design

Purpose

This project is to design, develop, publish, and maintain a PHP web site using recommended design practices.
You will work in team to prepare final project based on a case problem. You should use all techniques covered in the previous courses such as HTML, Cascading Style Sheets, and scripting languages.

To help Web designers rise to the new challenges, you will use an IDE that incorporates a set of tools focused and emphasized on standard-based and accessible design.

Planning for a new Web site involves understanding in two key areas: knowledge of the applications you will be using (the logical side), and knowledge of what direction you want to take this new Web project (the creative side). Begin with a plan, create a visual mind map, create sample page sketches, generate a timeline, assemble the site, create a marketing plan, and create a storyboard.

Web standards play an increasingly integral role in the web's realizing its full potential as a global interactive medium. Web users are becoming increasingly diverse, and their diversity is manifested in the technologies they use to access the web. For example, a growing number of

people use non-traditional devices such as wireless phones and handheld computers. Also, many individuals with disabilities use interfaces that differ, sometimes significantly, from the traditional combination of monitor, keyboard, and mouse. In order for web designers to deliver web content that is perceivable, operable, and usable by all users, they must design in accordance with web standards, particularly those developed by the World Wide Web Consortium (W3C) http://www.w3.org/.

An easy way to make sure it all flows and is simple to navigate is to storyboard your Web site. Storyboarding is an easy way to see what information goes on which page and how that page will flow with the other pages on the site. It will also allow you to see how the site navigation needs to be set up and avoid you having to redo the menus or content on multiple pages.

Step 1 - Collect the information that you want to include on the Web site. This includes text as well as images.

Step 2 - Sort the information into topics. Topics should start at the broadest and work toward the narrowest.

Step 3 - For each page of the Web site, determine page title, headings, sub headings and content.

Step 4 - Plan the structure of the information and how the pages will link. This needs to be logical. It can be linear, hierarchical or a branch design, in the form of a web.

Step 5 - Layout the menu structure.

Step 6 - Layout your template page. This should be the interior page of the Web site.

Step 7 - Test the layout. Imagine that you are a visitor to the Web site. You can enter on any page. Does it work? If not, start again.

You must adapt your new website so that it works equally well on a desktop computer, tablet, or mobile phone.

You work on a web project of your own choosing during the entire program or choose the Web project sample explained at the end of this document. You will work in team, 3 to 4 members, for the term project Web site. Students are expected to form their teams in the first class of the course and select a project topic by the end of the second class. Before you begin your project, I would like to see a rough outline and OK it.

Your final project should demonstrate your understanding of **TRUE** web design. Both form and function must be considered before you begin. You will develop awareness and appreciation of the myriad ways that people access the web and will be able to create standards-based websites that are accessible and usable by a full spectrum of users.

Task One

Submit your final map (layout) along with the answer to two key questions: What is the purpose of your site and who is the audience.

You have learned through previous courses that web design can be broken down into four basic phases:
1. Defining your goals (purpose) and Audience
2. Site Content
3. Site Structure
4. Visual Design

This is not an opportunity for you to just "breeze" through the next few weeks. It's also not about a quick fix and "I'm done" project nor is it a take home test. It's about form and design. Actually, it's more about integrity, discipline and thought. The lab time is your time. A time to think, struggle, experiment, create, and learn about web design. You should be frustrated at times, and it is in those emotional experiences where you make the choice to learn or quit. Think of frustration as "I haven't figured it out...YET".

If your final project is just a pure fun project without purpose your grade will reflect that purpose. Once again, I want to make it clear that I need a map and a defined purpose and audience before you begin the final.

All HTML pages, CSS documents, and JavaScript code must be submitted.

Building a Web Site Development Team

Although one person can maintain small Web sites, larger sites require groups of people filling a variety of roles [5]. Of course, the line between these roles can be blurred, and many aspects of site design require collaboration to solve a problem. The following are examples of the types of talent necessary to build a larger, well-conceived site.

Project management – The project management team is responsible for planning, scheduling, and integrating the many tasks that it takes to create a Web site. They create the milestones for deliverables and balance the staffing resources to keep the project on schedule and within budget. The project manager coordinates communication among team members and keeps the focus on the deliverables promised to the client.

HTML developers – These are the people responsible for creating the HTML code, conforming to standards, validating code, troubleshooting the site, and testing the site across different operating systems and Web browsers.

Designers – Designers are the graphic artists responsible for the look of the site. They use graphic design software such as Adobe Photoshop, Adobe Illustrator, or Adobe Fireworks. Designers are responsible for the wireframes, page template design, navigation icons, color scheme, and logos. If your site uses photographic content, the designers are called upon to prepare the photos for online display. They might also create animations and interactive content using Adobe Flash.

Writers and information designers – Writers prepare content for online display, including taxonomies, hypertext linking conventions, and navigation paths. In addition, many writers are

responsible for creating a site style guide and defining typographic conventions, as well as consistency, grammar, spelling, and tone. They also work closely with the designers to develop page templates and interactive content.

Application developers—Developers write the software programs and scripts you need to build interaction into your site. They may write a variety of applications in different programming languages for user interaction or write back-end applications that interact with a database.

Database administrators – The people who are responsible for maintaining the databases play an important role in commercial Web sites. Databases store all the information for customer transactions and e-commerce. Database administrators, application developers, and HTML developers work together when designing front-end forms used to collect data from the user. Database administrators are also responsible for data security backup and data recovery.

Server administrators – Get to know and appreciate the technical people who run your Web server. They take care of the sticky technical issues such as firewalls, ports, internal security, file administration, and backup procedures. Consult with them to determine your Web site's default filename and directory structure. They also can manage the server logs that contribute to your Web analytics reporting to determine how many visitors your site is attracting, where the visitors are coming from, and what pages they like best.

Project Milestones (Assignment Part)

Web Site Topic Approval: The topic of your web site must be approved by your instructor. Your instructor must approve your topic before you may begin to work on the next phase. Before starting to create a Web site, it is very important to spend some time designing the site, just as you should write an outline prior to writing a report or draw a flowchart before writing a computer program.

Determining the Objectives and Intended Audience of the Site:

Using a word processor, write a Planning Analysis Sheet that includes the following headings:

- Overall Goal – What is the primary message of this Web page? What is this organization trying to communicate?
- What is the purpose of the site? Why do you think this organization wants to share this information? What do they have to gain?
- Who is the intended audience? Will the audience consist of potential customers, current customers, or employees of a particular company or industry? Whom do you think this organization's message is directed to? Who would want to know this information? Do any of the following factors relate to your audience: age groups, social-economics, geography, gender, education, culture, etc.?
- What are the objectives of the site? To advertise a company or organization, provide information to customers; provide a service, or process orders?
- What do you want the web site to accomplish? What results do you want to see?
- What information do you need?
- What opportunity, problem, or issue is your site addressing?
- List the working title of each page on your Web site.

- List where you will obtain the content (facts, text, graphics, sounds, and video) for the web pages you listed above.

Determining the Content and Drawing a Flowchart of the Site:

A flowchart for a Web site (Site map) illustrates the relationships between the pages on the site starting with the Home page. Draw a flowchart (storyboard) of your web site that shows the hierarchy of pages and relationships between the pages, using a word processor, PowerPoint, or drawing software like Microsoft Visio.

Sketching a Tentative Page Layout:

A Page layout includes one tentative layout to be used for the home page and one general tentative to be used for all the content pages (the rest of the pages on the Web site).

List at least two related or similar sites found on the Web.

Visit other Web sites that are similar to your proposed site. What do you like about these sites? What do you dislike? Look for inspirational ideas. How can you make your Web site better?

Best Practices Check List – Use the Web Design Best Practices Checklist (http://terrymorris.net/bestpractices/) to analyze the competition. For each competitor, note two strengths and two weaknesses.

Requirements

Your system is to include as many of the HTML, CSS, JavaScript features that we have discussed and used in previous courses. It should have a minimum of 10 pages with the main page. You will create whatever pages, banners, links, etc. you think would be necessary. Everything you create should be based on coherent organization; conciseness; clarity. You will hand in printouts and instructions on how to operate the system. Included with these instructions will be table layouts and a disk containing all of your system's information.

Deliverables

- The Web site and other pertinent files.
- Project description: describe the major points of your Web application that make it the best in the class!
- Web site flowchart

The content pages will include at least:

- One page containing a form with at least three elements (place the form content in an e-mail message or text file),
- Appropriate meta tags,
- One page utilizing tables effectively (most students will use tables on each page),
- One animated image,
- One thumbnail image,
- One e-mail link,
- One link outside your site,
- One External CSS document, and

- One External Script document

You must use media queries to optimize each page for display on different-sized devices.

Project Evaluation

Your web site project will be evaluated on the following criteria:

- Project Milestones,
- Including all required web page elements,
- Following recommended web site design practices,
- Visual appeal of site, and
- Accomplishment of project's objectives.

Project Update Meeting 1 – Class 3: You should have at least three pages of your site completed by this time. Unless prior arrangements to meet are made, the Project Update Meetings will be held during class lab time. Bring the following items to discuss with and hand in to your instructor:

- The URL of your web site, if you want to publish your pages to your web site
- The source files of your web pages and images
- A sketch of your page(s) that will utilize a table.
- The Site Flowchart (revise as needed).

Project Update Meeting 2 – Class 6: You should have at least six pages of your site completed by this time. Unless prior arrangements to meet are made, the Project Update Meetings will be held during class lab time. Prepare the following to discuss with your instructor:

- The URL of your web site, if you want to publish your pages to your web site
- A sketch of your form(s)
- The Site Flowchart (revise as needed)

Project Update Meeting 3 – Class 9: You should have all pages of your site completed by this time. Unless prior arrangements to meet are made, the Project Update Meetings will be held during class lab time. Prepare the following to discuss with your instructor:

- The URL of your web site, if you want to publish your pages to your web site
- A sketch of your style, inline, embedded, and external CSS files
- The Site Flowchart (revise as needed)

Be prepared to show your web site to the class, explaining the purpose behind each page / group of pages.

You should have all pages of your site completed by this time: HTML, CSS, Script, and other files.

Note: Lateness, incompletion and typographical errors in the final project will be penalized.

Group Web Site Evaluation

You will work in a group and collaborate with other students as you evaluate an assigned web site according to best practices of web design.

Most Important Criteria for Final Evaluation: Overall Design and Creativity

Information Design: Submit in writing (Word document)

1. *Overall Goal*
2. *Purpose*
3. Audience

Interaction Design (Evaluated on grading sheet)

1. Overall Site Organization
2. Navigation: Are there any links or buttons on the home page that make it easy to move to other parts of the Web site
3. Interactivity: Do you have a chance to interact or to participate in the Web pages in some way? Are you expected to do something with the information on this web site

Presentation Design (Evaluated on grading sheet)

1. Color Scheme (complementary colors, contrasting colors)
2. Fonts (limited, not overdone)
3. Graphics (appropriate, useful, not just for show)
4. Multimedia effect (relates to theme of site)
5. Arrangement (layout) of graphics, text, etc. (clean and simple, related to theme of site)

Use the information from your textbook [1] and the Web Design Best Practices Checklist criteria at http://terrymorris.net/bestpractices to help you with your evaluation. (Note: Just use the criteria provided, do not numerically score the website.)

Begin working with your group in class 1. It's often helpful if someone volunteers to be the "leader". Another group member should volunteer to post the group's SUMMARY message. Some groups divide up the work and each student has a smaller task. Other groups have each member research and then they combine the best of the answers together. It's up to you.

Your group will need to evaluate your assigned web site and comment on the following:

1. Determine the target audience
2. Indicate if the site appeals to the target audience
3. Comment on the following components:
    a. Page Layout
    b. Browser Compatibility
    c. Navigation
    d. Color and Graphics
    e. Multimedia (if applicable)
    f. Content Presentation
    g. Functionality
    h. Accessibility
4. Suggest one or two ideas about how to improve the website.
5. NOTE: After your discussion is complete (but before class 2) one person from each group will post a summary response using the subject of "GROUP # SUMMARY".

How to be successful in the group work:

- First -- determine which group you are in.
- Review the Web Design Chapter and the best practices list.
- Decide in class 2 how to divide the work. Decide who will post the summary response.
- ONE of the group members needs to post a SUMMARY of your group's evaluation.

Grading rubrics are used to determine point totals for the project.

Website Design Rubric	Percentage
PHP (Content/Text)	5%
PHP Functions (Formatting and Appearance)	5%
PHP Classes (Content/Text)	5%
PHP MVC	5%
PHP Forms	5%
PHP Database Connector	5%
MySQL Database	5%
PHP Libraries	5%
PHP extra Features (using of AJAX, JSON, …)	5%
Error Handling	5%
JavaScript	5%
Content (English and French)	5%
Security	5%
Applying the context of Search Engine Optimization Starter Guide	5%
Spelling, Punctuation, & Grammar	5%
Graphics and images	5%
Layout	5%
Overall Quality	5%
Web Features	5%
Work Ethic	5%

References:

- PHP Best Practices https://phpbestpractices.org
- PHP The Right Way http://www.phptherightway.com
- Best Practices for Modern PHP Development https://www.airpair.com/php/posts/best-practices-for-modern-php-development
- Project Team Roles and Responsibilities https://www.usability.gov/how-to-and-tools/methods/project-team.html
- The Site Development Team: http://www.webstyleguide.com/wsg3/1-process/2-development-team.html
- 6 Roles Every Successful Web Design Project Needs: http://savvypanda.com/blog/beginner-level/6-roles-every-successful-web-design-project-needs.html
- Web Design & Development: https://www.customfitonline.com/building/
- HubPages: http://hubpages.com/
- 6 Phases of Web Site Design and Development Process: http://www.idesignstudios.com/blog/web-design/phases-web-design-development-process/
- Planning, Managing Web Sites and Web Site Projects: http://websitetips.com/planmanage/
- Planning More Effective Milestones in Web Design Projects: http://www.projectsmart.co.uk/planning-more-effective-milestones-in-web-design-projects.html
- Internet Marketing, SEO & Web Design Company: http://www.eplatformmarketing.com/index.html
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