

**IT 240 – Web Design  
Summer B, 2014  
Course Study Guide**

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## Study Guide

This is the official study guide for the IT 240 class, Web Design, as taught by Don Colton, Summer B, 2014. It is focused directly on the grading of the course.

<http://byuh.doncolton.com/it240/2143b/sguide.pdf> is the study guide, which is this present document. **It will be updated frequently throughout the semester**, as new assignments are made, and as due dates are established, and as clarifications are developed.

This study guide is focused directly on “what” and “when.” It talks about the description and grading of the Portfolio projects, which are the largest component of the semester grade. It tells what is required for each one.

## Syllabus

<http://byuh.doncolton.com/it240/2143b/syl.pdf> is the official syllabus for this course. It is reproduced in Chapter 1 (page 6) below.

## Text Book

There is also a textbook. It tells “why” and “how.” Its role is explaining things and telling how to make things work.

The textbook is “Introduction to Web Design and Development,” by Don Colton. It is available in PDF form, free.

Free textbook:

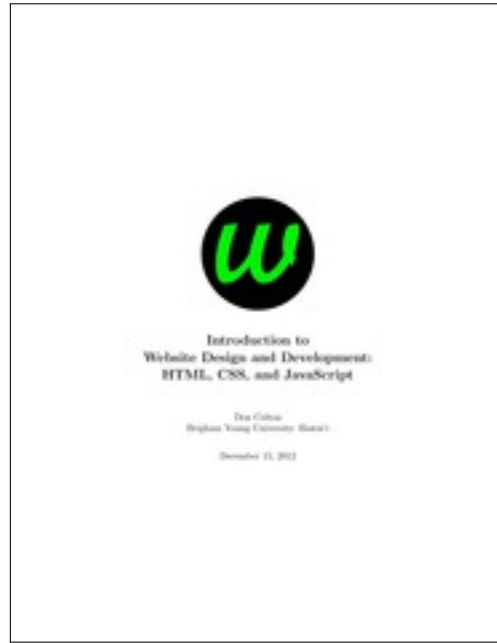
<http://iwdd.tk/>

Alternate URL for textbook:

<http://iwdd.doncolton.com/>

The textbook is still being written. New material will be added to it from time to time and chapter numbering may change during this semester. The index is good.

This study guide has appendices that include BYUH-specific information on things like Web Hosting (Appendix B, page 108).



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# Chapter 1

## Syllabus

The original, separate syllabus is the official version. This is a copy of that syllabus, and is provided for your convenience and as a place for me to correct minor errors such as spelling mistakes.

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## 1.1 Overview

The web has become a top means of communication on this planet. People shop online. People learn online. People share online. The web is the new printing press, and everyone can be a publisher.

With great power comes great responsibility. You have the responsibility to create webpages and websites that really communicate well with your intended audience. And the real reason for that is ... you have competition. Other publishers are communicating. If your materials do not look good enough, if they do not speak to the audience, the audience will walk away from you.

This class, IT 240, Web Design, teaches the fundamentals of web design. There are four aspects that are important. We will teach three of them. The four aspects are: Content, Markup, Styling, and Action.

For content, you are on your own. We will not cover that. We will presume that you already have something to say, or that someone else is telling you what to say.

Briefly, this is what we will do this semester:

**Quick Start:** We make a simple web page, less than ten lines long, right on the computer you are using. Then we talk about domain names and web



hosting. We follow that with control panels, to get your website up, and copyright, to avoid getting your website taken down. Finally, we publish.

**Markup (HTML):** Here we pop open the hood and look at the engine that runs the web. Good news: it is a pretty simple language. It can be mastered fairly quickly. You can be an expert at markup in no time at all. We will learn HTML5.

**Styling (CSS):** This is where a lot of the power and fun lies. Adding CSS to HTML is like turning a typewriter into a word processor. For us, this is the biggest hurdle to overcome. There is just a lot to learn. And we will dig in and learn it. This will be the main topic of our class.

**Action (JS):** This is mostly done by using JavaScript. We will introduce JavaScript and show you a few things that you can do. You learn what it takes to put JavaScript into a web page, and why you might want to. We will not go very deeply, but our introduction should help you find and implement JavaScript on your pages.

**Web Development Tools:** Many websites are built using cookie-cutter technologies. In minutes you can have your idea up and running. We may look into WordPress, the leading CMS (Content Management System) in the world.

**Multimedia:** Text is great, but what is a web page without pictures? We give you basic image editing skills. And we talk a bit about audio and video.

Most class time is spent actually making things or helping others make them. I go over parts of the textbook to introduce activities, but there is lots more in the book that we will assume you have read.

### 1.1.1 Preparation

We assume you have no web page creating experience whatsoever. We expect you can read, type, send and receive email, and visit web sites. We will teach you everything else you need to know.

Ideally you will have your own personal computer, probably a laptop, on which you can write and test web pages.

## 1.2 Course and Faculty

### 1.2.1 Course Information

- **Title:** Web Design
- **Course Number:** IT 240
- **Course Description:** Concepts of multimedia design and creation for the Internet using web programming tools to develop web pages for the Internet.
- **Prerequisites:** none
- **Meeting Time:** MWF 12:10 to 14:20
- **Location:** GCB 111
- **First Day of Instruction:** Mon, Jul 14
- **Last Day to Withdraw:** Wed, Aug 13
- **Last Day for Late Work:** Wed, Aug 27
- **Last Day of Instruction:** Fri, Aug 29
- **Final Exam:** Fri, Aug 29, 12:10 to 14:20

### 1.2.2 Faculty Information

- **Instructor:** Don Colton
- **Office Location:** GCB 128
- **Office Hours:** MWF 14:30 to 15:30.
- **Email:** doncolton2@gmail.com
- **Campus Homepage:**  
<http://byuh.doncolton.com/> is my campus homepage. It has my calendar and links to the homepages for each of my classes.
- **Off-Campus Homepage:**  
<http://doncolton.com/> is my off-campus homepage.

When class time is held one hour per day, I often reserve a classroom for office hours and additional lab time. For this course class time is two hours per day, and I have not established any special lab time.

### 1.2.3 Course Readings and Materials

- **Textbook:**  
<http://iwdd.tk/> Introduction to Website Design and Development: HTML, CSS, and JavaScript. By Don Colton.

- **Study Guide:**  
<http://byuh.doncolton.com/it240/2143b/sguide.pdf> is the study guide for this course. It includes a copy of some or all of this syllabus. The study guide is updated frequently throughout the semester as assignments are made and deadlines are established or updated.
- **Course Homepage:**  
<http://byuh.doncolton.com/it240/> is my course homepage. It has links to many things including the syllabus, study guide, and textbook.
- **Learning Management System:**  
<https://dcquiz.byuh.edu/> is the learning management system for my courses.

### 1.3 Grading

I use a 60/70/80/90 model based on 1000 points.

Based on 1000 points

930+ A	900+ A-	870+ B+
830+ B	800+ B-	770+ C+
730+ C	700+ C-	670+ D+
630+ D	600+ D-	0+ F

The points are divided up as follows.

- Effort 300
  - Daily Update 50
  - Readings 100
  - Study Time 150
- Achievement 700
  - Portfolio 400
  - Quizzes 300

### Half-Semester Adjustments

For uniformity in the syllabus from semester to semester, many of the grading aspects of the course are stated for the full-semester case, where meetings happen three times per week, 60 minutes per meeting, for 14 weeks. When the course is taught in a different format, in a half-semester for example, appropriate adjustments are made in scoring and other expectations. That

is, some things may be doubled and some other things may be cut in half. Some of these are called out when they appear.

### 1.3.1 Tracking Your Grade

I keep an online grade book so you can see how your points are coming along. It also lets you compare yourself with other students in the class (without seeing their names).

<https://dcquiz.byuh.edu/> is my personal Learning Management System. That is where I maintain my online grade book.

Your points are organized into several grade books: Overall, Effort, Activities (Portfolio), and Exam.

**2143b IT 240 Overall Grade Book:** The Overall includes the totals from Activity and Effort and adds your exam performance. This is where you can find your final grade at the end of the course.

**2143b IT 240 Effort Grade Book:** The Effort tracks the daily updates, the readings, and the study time.

**2143b IT 240 Portfolio Grade Book:** The Portfolio tracks your performance on in-class activities.

**2143b IT 240 Exam Grade Book:** The Exam tracks your scores on examinations (quizzes).

### 1.3.2 Effort: (50 points) Daily Update

Each day in class starts with the “daily update” (DU). It is my way of reminding you of due dates and deadlines, sharing updates and news, and taking roll. It is your way of saying something anonymously to each other and to me. It must be taken in class at a classroom computer during a window of time that starts a few minutes before class and ends 5 minutes into class.

**Tardiness:** My tardiness policy is that you should arrive in time to complete the daily update. Generally if you are only four minutes late or less, you will have time to complete the daily update before the deadline.

The DU is worth two points per class period, with 50 points expected (for 25 hours out of 20 class periods), and about 75 points possible. (For a

half-semester course this would typically be four points per class period.)

For students that miss the daily update, I normally give half credit if I know they attended.

**Attendance:** My attendance policy is that you will attend at least 25 hours (50 points) during the course. Anything beyond 50 points is extra credit. It is also a reward for coming on time, or close enough that you can do the update.

As part of the Daily Update, when readings are due I will ask you whether you read the assigned pages. I will use your report to update your readings points.

As part of the Daily Update, once a week I will ask you how much time you spent studying the previous week. I will use your report to update your study time points.

### 1.3.3 Effort: (100 points) Readings

We award points for doing the assigned readings. The expectation is not 100% comprehension, but is 100% familiarity and as much comprehension as you can reasonably gain by normal reading. This provides a basis for us when we do in-class activities.

#### Reading Due Dates:

- Fr Jul 18 R1: 20 points (U1: Basics).
- We Jul 23 R2: 17 points (U2: HTML 1).
- Mo Jul 28 R3: 20 points (U3: HTML 2).
- Fr Aug 01 R4: 15 points (U4: CSS 1).
- We Aug 06 R5: 18 points (U5: CSS 2).
- We Aug 13 R6: 10 points (U6+: JavaScript).

Readings are worth full credit if completed before class on the date they are due, and are worth half credit (rounded up) if completed later, but before the late-work deadline, Wed, Aug 27.

Credit is based on an all-or-nothing statement by the student in response to the question: did you complete the assigned readings?

For Units 1 through 6, the assigned readings are the entire narrative portion of those units. For the plus part of U6, it means you read all the headings in Unit 7 and in the Appendix.

### 1.3.4 Effort: (150 points) Study Time

We award points for study time (ST), which is time spent outside of class engaging with materials directly related to this course.

Each week you are invited to report, on your honor, how many hours you studied during the previous week, Sunday morning through Saturday night. We award two “effort” points per hour of “study,” for a goal of 12 points (6 hours, not including class time) and a maximum of 14 points (7 hours) per week, whether there is a holiday or not. (For a half-semester course this would normally be 12 hours per week and a maximum of 28 points (14 hours) per week.)

There are 14 weeks.  $14 \times 12 = 168$ .  $14 \times 14 = 196$  (max). Anything beyond 150 points counts as extra credit. (For a half-semester course this would normally be 7 weeks with 28 points maximum per week.)

Most students max out the study time points each week. This provides them with extra credit that helps ensure they get a good grade in the class.

**Carry Forward:** If you study more hours than the maximum for which I will give credit, you are invited to report them, and also carry forward the extra hours and report them in the next week. For example, if 7 hours is the maximum that counts and you studied 15 hours, you would report 15 hours of study, and I would count the first 7 hours. You would then take the remaining 8 hours and count it toward the following week.

There is no Carry Backward.

### 1.3.5 Effort Points are Optional

The effort points (daily update, readings, and study time) are partly there as a safety net. They are meant to be easy to earn. They help to make sure you will pass the class.

But when I calculate your final grade, I do it several ways:

- Counting every point, based on 1000 total points.
- Counting all but daily update, readings, and study time, based on 700 total points.

I grade several ways because some students have previous experience (or natural genius) and do not need to study as much.

I use whichever method gives you the best grade.

### 1.3.6 Portfolio (400 points)

We will normally have one portfolio assignment per class. Each will normally be worth 20 points.

20 assignments x 20 points = 400 points.

Some assignments may take longer and count more.

<http://byuh.doncolton.com/it240/2143b/sguide.pdf> has the study guide for this course. It provides detailed requirements for each assignment.

The due date and deadline for each activity will be published both in the daily update and in the course study guide. The study guide will be updated regularly throughout the semester.

Assignments will normally be due at 23:59 on the next class day after the assignment was discussed.

Sometimes voting is involved for extra credit, and to be included in the voting there may be an earlier deadline.

On portfolio work, you are encouraged to work with (but not just copy) your fellow students, and look at their work. We want everyone to get full credit on every assignment. Please help each other.

Every assignment will have ample opportunities for individual creativity. Duplicate work will make me sad.

**Deadline:** Because I believe in mastery, points are generally assigned on an all-or-nothing basis, and I allow late work and revisions up until the last day for late work, Wed, Aug 27. After that date, I may give partial credit for work that does not really meet my standards.

<http://dc.is2.byuh.edu/it240.2143b/> is the place to link your portfolio assignments. It is the Student Projects page for this class.

### 1.3.7 Exams: (300 points)

Exams (quizzes) will be given on the days listed in the calendar. Exams are based largely on memorization of answers from the textbook. We ask things like: What does URL stand for? What is the tag for a list item? What is the CSS for turning the background yellow?

Each exam corresponds to a unit of readings in the text book, which is typically about 25 pages.

Each exam is given three times, and I will keep your highest score.

Each exam takes about five minutes to complete, but you will be allowed ten minutes.

For each exam two practice tests will be made available to you a few days before the first time the exam is given. On one the questions are in book order for ease in studying. On the other the questions are in random order, just as they will be on the actual exam.

The first time each exam is given, it will happen toward the start of the class period on the same day that the matching readings are due. There is a 10 percent bonus added to your score, so it is possible to get more than 100 percent.

The second time each exam is given, it happens at the end of a class period, and you can leave early if you do not want to do the retake.

Each exam will be available a third time during the final exam day, Fri, Aug 29, 12:10 to 14:20.

The exam scores will be scaled to total 300 points.

### 1.3.8 Other Extra Credit

Report an error in my formal communications (the published materials I provide), so I can fix it. In this class, the materials include the following:

- The course website, parts relating to this semester.
- The course syllabus.
- The course study guide.
- The course textbook, since I wrote it.

Each error reported can earn you extra credit. (Typos in my email messages are common and do not count.)

Syllabus errors (unless they are major) will probably be fixed only in the study guide. Check there before reporting it.



## 1.4 Calendar

This is the currently planned calendar. Some items may be delayed if I feel it would be best to allow students more time to become fully prepared. There will also be portfolio activities most days.

Mo Jul 14 First Day of Instruction  
 We Jul 16 Q1 preview  
 Fr Jul 18 R1 due, 20pt, Q1  
 Mo Jul 21 Q1 retake  
 We Jul 23 R2 due, 17pt, Q2  
 Fr Jul 25 Q2 retake  
 Mo Jul 28 R3 due, 20pt, Q3  
 We Jul 30 Q3 retake  
 Fr Aug 01 R4 due, 15pt, Q4  
 Mo Aug 04 Q4 retake  
 We Aug 06 R5 due, 18pt, Q5  
 Fr Aug 08 Hurricane Iselle  
 Mo Aug 11 Q5 retake  
 We Aug 13 R6 due, 10pt, Q6, Last day to Withdraw  
 Fr Aug 15 Q6 retake  
 Mo Aug 18  
 We Aug 20  
 Fr Aug 22  
 Mo Aug 25  
 We Aug 27 Last day for late work  
 Fr Aug 29 Final Exam, 12:10 to 14:20, GCB 111

We meet about 20 times plus the final exam. (For a half-semester course this is broken into two meetings per day.)

**Exam dates** are mostly firm. Exams are closed-book, closed-notes, closed-neighbor, etc. You can bring blank paper. **Some memorization is required.**

**Readings** should be completed before class on the day assigned. They should prepare you for the learning activities of the day. Do your best to understand the readings, but please read them even if you do not understand things fully. Then ask questions.

**Other activities** are not specified by name here but will be introduced according to the pace at which students are learning. The due date and deadline for activities will be formally published in the study guide and

informally mentioned in class. The study guide will be updated regularly throughout the semester. For the truly curious, you are invited to consult the study guide from a previous semester to see what was done then. It will be similar this semester.

## 1.5 Instructional Methods

**Exams** happen on scheduled exam days. Exams are an instructional method that brings you, the student, face to face with the challenges you need to be able to solve.

**Lecture** days happen occasionally. I review material that was assigned from the text book and do what I can to make it clear and interesting. These can take up most of the class hour, and happen more often at the start of the course than they do later on.

**Activity** days are usually the most common. A learning activity is assigned. Typically it is a program to be written. The program will be described in the study guide. I will give an overview of the problem and the techniques that I think will be helpful to solve it. Typically this takes about 15 minutes, but the actual time varies widely. Then I sit down at the front of the room and invite students to visit with me, one on one, for assistance. Students are also encouraged to help each other. As students come to visit with me, I call up their computer screen from the place they were sitting, and we look at their program code or whatever else the student is asking about. We review the situation together. The student then returns to work on their program at their seat and I work with the next student waiting in line.

### 1.5.1 BYUH Learning Framework

I believe in the BYUH Framework for Learning. If we follow it, class will be better for everyone.

#### Prepare for IT 240

**Prepare:** Before class, study the course material and develop a solid understanding of it. Try to construct an understanding of the big picture and how each of the ideas and concepts relate to each other. Where appropriate use study groups to improve your and others' understanding of the material.

**In IT 240:** Read the textbook and study guide that I wrote for you. Then branch out and learn other things. There is more than we could cover in class because we all learn at different rates. Our in-class time is normally better spent working together doing activities and answering your questions than listening to my lectures.

### **Engage in IT 240**

**Engage:** When attending class actively participate in discussions and ask questions. Test your ideas out with others and be open to their ideas and insights as well. As you leave class ask yourself, “Was class better because I was there today?”

**In IT 240:** Participate in the in-class activities. Those that finish first are encouraged to help those that want assistance. It is amazing what you can learn by trying to help someone else.

### **Improve at IT 240**

**Improve:** Reflect on learning experiences and allow them to shape you into a more complete person: be willing to change your position or perspective on a certain subject. Take new risks and seek further opportunities to learn.

**In IT 240:** Review the web pages created by other students. Look for ways to improve your own work.

## **1.5.2 Support**

The major forms of support are (a) open lab, (b) study groups, and (c) tutoring.

If you still need help, please find me, even outside my posted office hours.

### **Office Hour / Open Lab**

When class time is held one hour per day, I often reserve a classroom for office hours and additional lab time. For this course class time is two hours per day, and I have not established any special lab time.

## Study Groups

You are encouraged to form a study group. If you are smart, being in a study group will give you the opportunity to assist others. By assisting others you will be exposed to ideas and approaches (and errors) that you might never have considered on your own. You will benefit.

If you are struggling, being in a study group will give you the opportunity to ask questions from someone that remembers what it is like to be totally new at this subject. They are more likely to understand your questions because they sat through the same classes you did, took the same tests as you did, and probably thought about the same questions that you did.

Most of us are smart some of the time, and struggling some of the time. Study groups are good.

## Tutoring

The CIS department provides tutoring in GCB 111, Monday through Friday, typically starting around 17:00 and ending around 23:00 (but earlier on Fridays). Normally a schedule is posted on one of the doors of GCB 111.

Tutors can be identified by the red vests they wear when they are on duty.

Not all of the tutors know about everything. But all of the tutors should know which tutors do know about whatever you are asking about, so they can direct you toward the best time to get your questions answered.

The best way to work with a tutor is to show them something that you have written and ask them why it does not work the way you want. This can open the door to a helpful conversation.

Another good way to work with a tutor is to show them something in the textbook and ask about it.

The worst way to work with a tutor is to plunk down next to them and say, “I don’t understand. Can you teach me?” If you did not try hard to read carefully, you are wasting everybody’s time.

## 1.6 Course Policies

**Subject to Change:** Like all courses I teach, I will be keeping an eye out

for ways this one could be improved. Changes generally take the form of opportunities for extra credit, so nobody gets hurt and some people may be helped. If I make a change to the course and it seems unfair to you, let me know and I will try to correct it. If you are brave enough, you are welcome to suggest ways the class could be improved.

**Digital Recording:** I may digitally record the audio of my lectures some days. This is to help me improve my teaching materials.

### 1.6.1 Excused Absences

There are many good reasons why students request special treatment. Instead of dealing with these as they arise, based on my years of experience, I have adopted general policies that are intended to accommodate all but the most difficult cases.

### 1.6.2 Reasonable Accommodation

This section covers special needs, including qualified special needs, as well as all other requests for special treatment.

I have carefully designed each of my classes to provide reasonable accommodation to those with special needs. Beyond that, further accommodation is usually considered to be unreasonable and only happens in extreme cases. Please see the paragraph on “Accommodating Special Needs” below for more information.

**Ample Time:** Specifically, I allow ample time on tests so that a well-prepared student can typically finish each test in half of the time allowed. This gives everyone essentially double the amount of time that should normally be needed.

**Exam Retakes:** Each exam is given three times. Beyond that there are no retakes or make-up exams.

**Deadlines:** Most assignments are due soon after they are discussed, but I normally allow late work at full or partial credit for several more weeks (except at the end of semester).

Even though I truly believe that these methods provide reasonable accommodation for almost everyone in almost every case, you might have a highly unusual situation for which I can and should do even more. You are welcome

to see me about your situation.

### 1.6.3 Communication

We communicate with each other both formally and informally.

Formal communication tends to be written and precise. Formal is for anything truly important, like grades. Formal is authoritative.

Informal communication tends to be more casual and impromptu. Informal is meant to be helpful and efficient. Reminders are informal. Emails are informal. Explanations are usually informal.

#### Me to You, Formal

I communicate formally, in writing, through (a) the syllabus, (b) the study guide, and (c) the learning management system.

**(a) Syllabus:** <http://byuh.doncolton.com/it240/2143b/syl.pdf> is the syllabus for this course. It tells our learning objectives and how you will be graded overall. You can rely on the syllabus. After class begins, it is almost never changed except to fix major errors.

**(b) Study Guide:** <http://byuh.doncolton.com/it240/2143b/sguide.pdf> is the study guide for this course. It includes a copy of the syllabus. The study guide is updated frequently throughout the semester, as assignments are made and deadlines are established or updated.

**(b1) Calendar:** The study guide tells when things will happen. It contains specific due dates.

**(b2) Assignments:** The study guide tells what assignments have been made and how you will be graded, item by item. It provides current details and specific helps for each assignment. It provides guidance for taking the exams.

**(c) DCQuiz:** <https://dcquiz.byuh.edu/> is my learning management system. I use it to give tests. I use it to show you my grade books.

#### Me to You, Informal

My main informal channels to you are (a) word of mouth and (b) email.

**(a) Word of Mouth, including Lecture:** Class time is meant to be informative and helpful. But if I say anything truly crucial, I will also put it into the study guide.

**(b) Email:** My emails to you are meant to be helpful. But if I say anything truly crucial, I will also put it into the study guide. Normally I put IT 240 at the front of the subject line in each email I send.

### **You to Me, Formal**

Your formal channels to me, specifically how you turn in class work, are mainly via (a) the learning management system, (b) email, and (c) specifically requested projects.

**(a) DCQuiz:** To use my learning management system, you must log into it. Then, you can respond to questions I have posted. Each day there will be a “daily update”. I say more on that below. Exams will also be given using DCQuiz.

**(b) Email:** You will use formal email messages to submit some of the programs you write and to tell me certain other things. The study guide tells how to send formal emails, including where to send them, what subject line to use, and what to put in the body of the message.

**(c) Student Projects:** The study guide may tell you to submit certain work in the form of a webpage or web-based program. If so, it will say specifically where to put it. I will go to that spot to grade it.

### **You to Me, Informal**

Your informal channels to me, typically how you ask questions and get assistance, are mainly face to face and by email or chat.

**Face to Face:** If you need help with your class work, I am happy to look at it and offer assistance. Often this happens during class or during office hours. Often I will have you put your work on your computer screen, and then I will take a look at it while we talk face to face.

**Email / Chat:** You can also get assistance by sending me an email or doing a chat. I will do my best to respond to it in a reasonable and helpful way. If you want something formal, use the formal rules.

If you are writing about several different things you will usually get a faster

response if you break it up into several smaller emails instead of one big email. I try to respond to a whole email at once, and not just part of it. I usually answer smaller and simpler emails faster than big ones.

## 1.7 Learning Outcomes

Outcomes (sometimes called objectives) are stated at several levels: ILO, PLO, and CLO. In this section we set forward these outcomes and tell how they are aligned with one another.

### 1.7.1 ILOs: Institutional Outcomes

**ILO:** Institutional Learning Outcomes (ILOs) summarize the goals and outcomes for all graduates of BYUH.

Brigham Young University Institutional Learning Objectives (ILOs) Revised  
24 February 2014

Graduates of Brigham Young University–Hawai‘i (BYUH) will:

**Knowledge:** Have a breadth of knowledge typically gained through general education and religious educations, and will have a depth of knowledge in their particular discipline.

**Inquiry:** Demonstrate information literacy and critical thinking to understand, use, and evaluate evidence and sources.

**Analysis:** Use critical thinking to analyze arguments, solve problems, and reason quantitatively.

**Communication:** Communicate effectively in both written and oral form, with integrity, good logic, and appropriate evidence.

**Integrity:** Integrate spiritual and secular learning and behave ethically.

**Stewardship:** Use knowledge, reasoning, and research to take responsibility for and make wise decisions about the use of resources.

**Service:** Use knowledge, reasoning, and research to solve problems and serve others.



### 1.7.2 PLOs: Program Outcomes

**PLO:** Program Learning Outcomes (PLOs) summarize the goals and outcomes for graduates in programs for which this course is a requirement or an elective. These support the ILOs, but are more specific.

At the end of this section, we include the relevant page from the CIS Program Outcomes Matrix, dated April 2011.

**L (low):** The following outcomes are pursued at the “Introduced” level, and apply to one or more of the majors that use this course.

- a. An ability to apply knowledge of computing and mathematics appropriate to the discipline.
- b. An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.
- c. An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
- CSk. An ability to apply design and development principles in the construction of software systems of varying complexity.
- ISj. An understanding of processes that support the delivery and management of information systems within a specific application environment.
- ITm. An understanding of best practices and standards and their application.

**M (medium):** The following outcomes are pursued at the “Practiced With Feedback” level, and apply to one or more of the majors that use this course.

- e. An understanding of professional, ethical, legal, security and social issues and responsibilities.
- g. An ability to analyze the local and global impact of computing on individuals, organizations, and society.
- i. An ability to use current techniques, skills, and tools necessary for computing practice.
- ITj. An ability to use and apply current technical concepts and practices in the core information technologies.
- ITk. An ability to identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems.
- ITl. An ability to effectively integrate IT-based solutions into the user environment.

**H (high):** The following outcomes are pursued at the “Demonstrated at the Mastery Level”, and apply to one or more of the majors that use this

course.

- f. An ability to communicate effectively with a range of audiences.

### 1.7.3 CLOs: Course Outcomes

**CLO:** Course Learning Outcomes (CLOs, also called Student Learning Outcomes, or SLOs) summarize the goals and outcomes for students who successfully complete this course. These support the PLOs, but are more specific.

Course Goals and Student Learning Outcomes are as follows:

By the conclusion of this course, students will demonstrate the ability to do the following.

- Learning objective. (How we achieve it.)
- Properly use HTML markup. (We cover h1, p, links, div, span, head, body, tables, lists, and forms.)
- Properly use CSS to style a webpage. (We cover box model, font families, inline style, and positioning.)
- Properly separate HTML and CSS. (We cover internal and external stylesheets based on tag, ID, class, and pseudo-class.)
- Create valid HTML and CSS. (We validate our HTML and CSS against W3C standards.)
- Integrate your knowledge. (Complete a Capstone Activity where you design and create a website that demonstrates your skills.)

Supplemental Objectives: These are things I may also cover because I think they are important.

- Edit images. (We use Gimp to crop, resize, use transparency, and create icons.)
- Understand JavaScript. (We use it to dynamically alter a webpage.)
- Understand CMS. (We may install, operate, and customize WordPress, a popular Content Management Systems, including running a blog.)

- Understand DNS. (We establish a domain name and subdomains and populate them with content.)

## Program Outcomes

- CS Only**

- ## IS Only

- IT Only**

- R** = Required in that program | **CSS** = CS B.S. | **CIS** = CIS B.S. | **IS** = IS B.S. | **IT** = IT B.S.

# = choose at least 9 cr hrs | O = optional as a substitute | L = Introduced, M = Practiced with feedback, H = Demonstrated at the Mastery level

Course	Description	CSS	CIS	IS	IT	a	b	c	d	e	f	g	h	i	CSj	CSk	ISj	ITj	ITk	ITl	ITm	ITn
CIS 100	Fundamentals of Info. Systems & Tech.			R	R	L	L	L	L	L	L	L	L	L	CSj	CSk	L	L	L			
CIS 101	Beginning Programming	R	R	R	R	L	L							L	L	L						
CIS 202	Object-Oriented Programming	R	R	R	R	M	M	M		L			L	M	L	L		M	L		L	L
CIS 205	Discrete Mathematics I	R	R	R	R	M	M	L	L					M	M	M						
CIS 206	Discrete Mathematics II	R	R	R		M	M	L	L					M	M	M						
CIS 305	Systems Engineering I	R	R	R	R	M	M	M	M	L	L	M	L	M	L	L	M	L	H	L	H	M
CIS 401	Web Application Development	R		R	R	M	L	L						M			L	M	L	L		
CIS 405	Systems Engineering II	R	R	R	R	M	M	M	M	L	M	M	M	M	M	M	M	M	H	M	H	M
CIS 470	Ethics in Computer & Info. Sciences	R	R	R	R		L	L	M	H	H	H	H									
CS 203	Object-Oriented Programming II	R				M	M	M						M	M	M						
CS 210	Computer Organization	R			R	H	M	L							M	L		M				
CS 301	Algorithms & Complexity	R				L	M	L	L		M		L	M	H							
CS 320	Computational Theory	R				H	M			L		L	M		H	M						
CS 415	Operating Systems Design	R				H	H	H		M	M	M	H	H	H	H					M	
CS 420	Programming Languages	R				H	H	H		M	M	M	H	H	H	H						
CS 490R	Adv Topics in Computer Science (6 CR)	R				H	H	H					H		H	H						
IS 330	Management Information Systems					L	L		M	L	M	L	L	L			L					
IS 350	Database Management Systems	R	R	R	R	M	L	M	M	L	L	L	L	M	M	L	L	H	L			
IS 430	ITS – Enterprise Resource Planning			R			L	M	M	M	M	M	M	H			H		L		M	
IS 435	Advanced Concepts ERP Systems					H	H		H	L	M	M	M	H			H			L	H	
IS 485	Project Management & Practice			R		M	H	M	H	M	H	M	H	M	M	H	H	M				H
IT 220	Linux Essentials				R	M								M				M				
IT 224	Computer Hardware & Systems Software			R	R	M	H	L	M	L	M	L	L	L				M	M	L	L	
IT 240	Fund. Of Web Design & Technology			R	R	L	L	L		M	H	M		M		L	L	M	M	M	L	
IT 280	Data Comm. Systems & Networks	R	R	R	R	M	M	M		M	M		L	M				M	L	L		
IT 420	Linux System Administration				R	H	H	M						H				M	M	M		
IT 426	Computer Network Services				R	H	H	M	L	L	L	L	L	M				H	M	M	M	L
IT 440	Foundations of HCI				R	M	H	H	M	H	M	H	M	M			H	M	H	H	H	M
IT 480	Computer Network Design				R	H	H	H					L, M	H				M	M	M		M
IT 481	Information Assurance & Security				R		L	L		L	L	L	L	M				M	M	L	M	L
Math 112	Calculus I	O		R	#																	
Math 113	Calculus II	O			#																	
Math 119	Applied Calculus	R	O	O	#																	
Math 214	Multivariable Calculus				#																	

## 1.8 General Topics

All syllabi are encouraged or required to address certain topics. These are generally considered to be common sense, but we find that it is useful to mention them explicitly anyway.

### 1.8.1 Academic Integrity

#### Applicable Actions

<http://honorcode.byuh.edu/> details the university honor code. In the section entitled “Applicable Actions” the following are listed.

Examples of possible actions include but are not limited to the following, for instructors, programs, departments, and colleges:

- Reprimanding the student orally or in writing.
- Requiring work affected by the academic dishonesty to be redone.
- Administering a lower or failing grade on the affected assignment, test, or course.
- Removing the student from the course.
- Recommending probation, suspension, or dismissal.

Depending on the specifics of the offense, any of these responses may be possible.

Cheating on exams is the most common form of dishonesty that I normally encounter. Normally this happens when students bring in notes that include answers to past exam questions. I approve the studying of past exams, and bringing in of “memories” based on study, but not the access to written notes, including notes retrieved from other exams or stored on cell phones or other devices. Any such activity, if caught, can result in failure of the entire course.

Cheating on activities is almost impossible because I allow students to collaborate and assist each other. Copy and paste is not allowed, but it is difficult to detect and prove, so I normally do not bother. You should try to understand the work you submit.

#### Plagiarism

We learn by watching others and then doing something similar.

**Plagiarism:** Sometimes it is said that plagiarism is copying from one person, and research is “copying” from lots of people.

When you are having trouble with an assignment, I encourage you to look at not just one, but many examples of work done by others. Study the examples. See what you can learn from them. Do not automatically trust that they are right. They may be wrong.

Do not simply copy. Do your own work. When I review computer code, sometimes I see quirky ways of doing things. They appear to work even though they may be wrong. And then I see someone else that has done it exactly the same wrong way. This does not feel like “doing your own work.” Cut and paste is pretty much an honor code violation. Read and learn is totally okay. Copying other ideas is okay. I don’t want to see any cut and paste.

<http://en.wikipedia.org/wiki/Plagiarism> has a wonderful article on plagiarism. Read it if you are not familiar with the term. Essentially, plagiarism is when you present the intellectual work of other people as though it were your own. This may happen by cut-and-paste from a website, or by group work on homework. In some cases, plagiarism may also create a violation of copyright law. If you borrow wording from someone else, identify the source.

Intentional plagiarism is a form of intellectual theft that violates widely recognized principles of academic integrity as well as the Honor Code. Such plagiarism may subject the student to appropriate disciplinary action administered through the university Honor Code Office, in addition to academic sanctions that may be applied by an instructor.

Inadvertent plagiarism, whereas not in violation of the Honor Code, is nevertheless a form of intellectual carelessness that is unacceptable in the academic community. Plagiarism of any kind is completely contrary to the established practices of higher education, where all members of the university are expected to acknowledge the original intellectual work of others that is included in one’s own work.

**IT 240: In this course group work is permitted and encouraged but you are not allowed to turn in work that is beyond your understanding, whether you give proper attribution or not. Make sure you understand what you are submitting and why each line is there.**

You must write your own programs. You can look at what other people

have done, and you can show other people what you have done, but you are forbidden to copy it. Look at it, yes. Understand it, yes. Ask about it, yes. Explain it, yes. Copy it, no.

**IT 240: On exams you are required to work from personal memory, using only the resources that are normally present on your computer. This means the exams are closed book and closed notes. However, you are nearly always allowed (and encouraged!) to test your programs by actually running them on the computer where you are sitting. Students caught cheating on an exam may receive a grade of F for the semester, no matter how many points they may have earned, and they will be reported to the Honor Code office.**

Faculty are responsible to establish and communicate to students their expectations of behavior with respect to academic honesty and student conduct in the course. Observations and reports of academic dishonesty shall be investigated by the instructor, who will determine and take appropriate action, and report to the Honor Code Office the final disposition of any incident of academic dishonesty by completing an Academic Dishonesty Student Violation Report. If the incident of academic dishonesty involves the violation of a public law, e.g., breaking and entering into an office or stealing an examination, the act should also be reported to University Police. If an affected student disagrees with the determination or action and is unable to resolve the matter to the mutual satisfaction of the student and the instructor, the student may have the matter reviewed through the university's grievance process.

### 1.8.2 Sexual Misconduct

Sexual Harassment is unwelcome speech or conduct of a sexual nature and includes unwelcome sexual advances, requests for sexual favors, and other verbal, nonverbal, or physical conduct. Conduct is unwelcome if the individual toward whom it is directed did not request or invite it and regarded the conduct as undesirable or offensive.

Brigham Young University–Hawai‘i (BYUH) is committed to a policy of nondiscrimination on the basis of race, color, sex (including pregnancy), religion, national origin, ancestry, age, disability, genetic information, or veteran status in admissions, employment, or in any of its educational programs or activities.

University policy and Title IX of the Education Amendments of 1972 prohibits sexual harassment and other forms of sex discrimination against any participant in an educational program or activity at BYUH, including student-to-student sexual harassment.

The following individual has been designated to handle reports of sexual harassment and other inquiries regarding BYUH compliance with Title IX:

Debbie Hippolite-Wright  
Title IX Coordinator  
Vice President, Student Development & Life  
Lorenzo Snow Administration Building  
55-220 Kulanui Street  
Laie, Hawaii 96762  
Office Phone: 808-675-4819  
E-Mail: [debbie.hippolite.wright@byuh.edu](mailto:debbie.hippolite.wright@byuh.edu)  
Sexual Harassment Hotline: 808-780-8875

BYUH's Office of Honor upholds a standard which states that parties can only engage in sexual activity freely within the legal bonds of marriage between a man and a woman. Consensual sexual activity outside the bonds of marriage is against the Honor Code and may result in probation, suspension, or dismissal from the University.

### 1.8.3 Dress and Grooming Standards

The dress and grooming of both men and women should always be modest, neat and clean, consistent with the dignity adherent to representing The Church of Jesus Christ of Latter-day Saints and any of its institutions of higher learning. Modesty and cleanliness are important values that reflect personal dignity and integrity, through which students, staff, and faculty represent the principles and standards of the Church. Members of the BYUH community commit themselves to observe these standards, which reflect the direction given by the Board of Trustees and the Church publication, "For the Strength of Youth." The Dress and Grooming Standards are as follows:

**Men.** A clean and neat appearance should be maintained. Shorts must cover the knee. Hair should be clean and neat, avoiding extreme styles or colors, and trimmed above the collar leaving the ear uncovered. Sideburns should not extend below the earlobe. If worn, moustaches should be neatly



trimmed and may not extend beyond or below the corners of mouth. Men are expected to be clean shaven and beards are not acceptable. (If you have an exception, notify the instructor.) Earrings and other body piercing are not acceptable. For safety, footwear must be worn in all public places.

**Women.** A modest, clean and neat appearance should be maintained. Clothing is inappropriate when it is sleeveless, strapless, backless, or revealing, has slits above the knee, or is form fitting. Dresses, skirts, and shorts must cover the knee. Hairstyles should be clean and neat, avoiding extremes in styles and color. Excessive ear piercing and all other body piercing are not appropriate. For safety, footwear must be worn in all public places.

#### 1.8.4 Accommodating Special Needs

Brigham Young University–Hawai‘i (BYUH) is committed to providing a working and learning atmosphere, which reasonably accommodates qualified persons with disabilities. Reasonable academic accommodations are reviewed for all students who have qualified documented disabilities. If you have any disability that may impair your ability to complete this course successfully, please contact the Coordinator for Students with Special Needs, Leilani A‘una, by email at [aunal@byuh.edu](mailto:aunal@byuh.edu), or by telephone at 808-675-3518 or 808-675-3999, or by visiting her office at McKay 181.

Students with disabilities who are registered with the Special Needs Services should schedule an appointment with the instructor to discuss accommodations. If the student does not initiate this meeting, it is assumed no accommodations or modifications will be necessary to meet the requirements of this course. After registering with Services for Students with Special Needs, Letters of accommodation will be sent to instructors with the permission of the student.

If you need assistance or if you feel you have been unlawfully discriminated against on the basis of disability, you may seek resolution through established grievance policy and procedures. You should contact the Human Resource Services at 808-780-8875.

## 1.9 Syllabus Requirements

Brigham Young University–Hawai‘i (BYUH) has adopted certain requirements relating to the information that must be provided in syllabi. This section lists those requirements and for each item either provides the information directly or gives a link to where it is provided above.

**Course Information:** See section [1.2.1](#) (page 9).

- **Title:** Web Design
- **Number:** IT 240
- **Semester/Year:** Summer B, 2014
- **Credits:** 3
- **Prerequisites:** none
- **Location:** GCB 111
- **Meeting Time:** MWF 12:10 to 14:20

**Faculty Information:** See section [1.2.2](#) (page 9).

- **Name:** Don Colton
- **Office Location:** GCB 128
- **Office Hours:** MWF 14:30 to 15:30.
- **Telephone:** 808-675-3478
- **Email:** doncolton2@gmail.com

**Course Readings/Materials:** See section [1.2.3](#) (page 9) for a list of textbooks, supplementary readings, and supplies required.

**Course Description:** See section [1.2.1](#) (page 9).

Expected Proficiencies:

See section [1.1.1](#) (page 8) for the proficiencies you should have before undertaking the course.

**Course Goals and Student Learning Outcomes, including Alignment to Program (PLOs) and Institutional (ILOs) Learning Outcomes, and extent of coverage.**

See section [1.7](#) (page 23) for learning outcomes, showing the content of the course and how it fits into the broader curriculum. A listing of the departmental learning outcomes is provided together with the ratings taken from department’s matrix assessment document representing the degree to which the course addresses each outcome.

**Instructional Methods:** See section [1.5](#) (page 17).

Learning Management System:

<https://dcquiz.byuh.edu/> is the learning management system for my courses.

Framework for Student Learning:

See section 1.5.1 (page 17) for a discussion of the student learning framework and how I use it.

**Course Calendar:** See section 1.4 (page 16) for the calendar in general.

Here are some items of particular interest:

- **First Day of Instruction:** Mon, Jul 14
- **Last Day to Withdraw:** Wed, Aug 13
- **Last Day of Instruction:** Fri, Aug 29
- **Final Exam:** Fri, Aug 29, 12:10 to 14:20
- **Final Exam Location:** GCB 111

**Course Policies:** See section 1.6 (page 19).

- **Attendance:** See section 1.3.2 (page 12).
- **Tardiness:** See section 1.3.2 (page 11).
- **Class Participation:** See section 1.5.1 (page 18).
- **Make-Up Exams:** See section 1.6.2 (page 20).
- **Plagiarism:** See section 1.8.1 (page 29).
- **Academic Integrity:** See section 1.8.1 (page 28).

**Evaluation (Grading):** See section 1.3 (page 10).

**Academic Honesty:** See section 1.8.1 (page 28).

**Sexual Harassment and Misconduct:** See section 1.8.2 (page 30).

**Grievances:** The university grievance policy specifies that the policies listed on the syllabus can act as a contract and will be referenced if a student complains about the faculty.

**Services for Students with Special Needs:** See section 1.8.4 (page 32).

## Chapter 2

# Calendar

Following is the projected calendar. Items marked with \*\* are firmly scheduled. Other topics and due dates may change.

Mo Jul	14	First Day of Instruction
We Jul	16	Q1 preview
Fr Jul	18	R1 due, 20pt, Q1
Mo Jul	21	Q1 retake
We Jul	23	R2 due, 17pt, Q2
Fr Jul	25	Q2 retake
Mo Jul	28	R3 due, 20pt, Q3
We Jul	30	Q3 retake
Fr Aug	01	R4 due, 15pt, Q4
Mo Aug	04	Q4 retake
We Aug	06	R5 due, 18pt, Q5
Fr Aug	08	Hurricane Iselle
Mo Aug	11	Q5 retake
We Aug	13	R6 due, 10pt, Q6, Last day to Withdraw
Fr Aug	15	Q6 retake
Mo Aug	18	
We Aug	20	
Fr Aug	22	
Mo Aug	25	
We Aug	27	Last day for late work
Fr Aug	29	Final Exam, 12:10 to 14:20, GCB 111

## Chapter 3

# General Information

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### 3.1 Your IS2 Account

We provide you with a website account in connection with this class. The same account is used for other classes in the CIS department.

(**netid**) means your CES Network ID. This is your normal BYUH login name.

(**netid**)@go.byuh.edu is your BYUH email address.

(**netid**) will be used as your IS2 account name (username). Your initial password will be your seven-digit BYUH ID number, which you should change. The IS2 machine does not use your BYUH password, but you can probably make them the same if you wish.

(netid).is2.byuh.edu will be your IS2 domain name.

http://(netid).is2.byuh.edu/ will be your IS2 homepage.

/home/(netid) is your home directory on the IS2 machine.

/home/(netid)/public\_html is your web space on the IS2 machine.

/home/(netid)/public\_html/240 will be your web space for this class. If this is a problem for you, see me and we will try to work out an alternative for you.

If you have difficulty seeing webpages in the is2.byuh.edu domain, you may be suffering from a DNS problem. See appendix A (page 107) for guidance and a possible solution.

## 3.2 cPanel Login Problems

If you are trying to use cPanel and have trouble logging in, the person to see is Micah Uyehara, in GCB 106. His email address is <micah.uyehara@byuh.edu>. He runs the IS2 machine where our cPanel accounts are stored.

## 3.3 Your TK Account

You will have a personal domain name. We will use .tk as our domain registrar, mostly because it is free. Start thinking of what you might want to select as your domain name.

If for some reason you do not want to use .tk we may be able to work something else out. See me.

## 3.4 Grading

Because this is a web design class, most of the assignments require you to make a webpage or update your website in some way.

**Due Dates:** Each task will be discussed in class on the day it is introduced. Normally it will be due the night before the next class meeting, nominally at 23:59 (11:59 PM). Often I grade things just after midnight, but sometimes not until later in the morning, just before class.

**Essentially Correct:** Each task has essential elements. When you have completed the essential elements, your task is considered to be essentially correct, and I will grade it. Before that, it will only receive a minor number of courtesy points if any.

**Gotcha Elements:** Once it has the essential elements I will check for the gotcha elements. These are the important things that I want you to have, but they are not strictly essential to the task. Problems here can result in lost points. For example:

- **Title:** Provide a helpful and accurate title and primary (h1) heading.
- **Name:** Show your name somewhere obvious and near the top of the page.
- **Intro:** Write a sentence or two introducing the task and describing its purpose.
- **Portfolio:** Provide a link to your Portfolio Homepage.
- **Backlink:** Update your Portfolio Homepage to link back to your new page. The link should be helpful, not cryptic.
- **HTML:** Link to the HTML Validator for easy checking of your code. Make sure it validates cleanly.
- **CSS:** Link to the CSS Validator for easy checking of your code. Make sure it validates cleanly.

**Bonus Points:** Voting often happens in class. Student work that is essentially correct is included in the vote, and all students have a chance to rate the work on a five-point scale of nice to incredible. This is a chance for other students to see your work and learn from it. Students scoring high in the voting get **extra credit** points (and bragging rights).

**Deadlines:** Sometimes it is difficult or impossible to complete a task by the due date. Maybe you are part of an athletic team that is traveling, or maybe you are sick. Or maybe you lost a few points for gotcha items, and you have fixed them now.

We generally allow a little extra time to get the work done, maybe a couple of days, maybe a week. If you complete the work, or substantially improve the work, after the due date, you can request a re-grade. See section C.5 (page 111) for details.

No work will be accepted after 23:59 on the last day of class (Fri, Aug 29).

## 3.5 Webpage Problems

### 3.5.1 Webpage Does Not Load

If you are trying to load a webpage that I mention in this study guide, and the webpage does not load, it could be a DNS (domain name system) problem. In any case, the person to see is Micah Uyehara, in GCB 106. He runs our department DNS system.

In the past this has sometimes been a problem for students living on campus, because of the special way that the CIS department is “sandboxed” to protect the rest of the university from the weird things we occasionally do. But Micah has solutions.

### 3.5.2 404 Error

404 is the error number used by the world wide web to indicate a missing webpage. If you get a 404 error when trying to see your own webpage, it means the browser asked for the page and the server said it does not exist.

The most common cause of this problem is spelling things differently than expected.

If your webpage should be named “index.html” and you actually name it “Index.html”, it will not be found. Pay attention to capitalization.

If your folder should be named “myproject” and you name it “my project” (with a space), it will not be found.

I have even see problems when the student accidentally put a space at the end of a file name, like “index.html ”.

### 3.5.3 Blank or Incomplete Webpage

Maybe your webpage is incomplete. For example, maybe it has a heading but nothing after that.

Do a “show page source” in your browser. Sometimes that will uncover problems such as missing tag endings, like if you said `</h1` when you meant



to say `</h1>`.

## Chapter 4

# DCQuiz: My Learning Management System

### Contents

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---

I have developed my own learning management system (LMS) that will be used for this course. Other LMS examples include BlackBoard, Canvas, and Moodle. I did not write them. I currently do not use them.

<https://dcquiz.byuh.edu/> is the DCQuiz URL.

Since I wrote it myself, I am also responsible for any bugs that may be in its programming. If you notice any bugs, I hope you will let me know so I can get them fixed.

I can also make improvements when I think of them. I like that.

## 4.1 Grade Book

The most important place you will see DCQuiz is the grade book.

I use DCQuiz to manage my grade book for this class. You will be able to see the categories in which points are earned, and how many points are credited to you.

You will also be able to see how many points are credited to other students, but you will not be able to see which students they are.

This gives you the ability to see where you stand in the class, on a category-by-category basis, and in terms of overall points. Are you the top student? Are you the bottom? Are you comfortable with your standing?

## 4.2 Daily Update

Another place you are likely to see DCQuiz is the daily update.

Typically in class I start with a quiz called the Daily Update. It usually runs the first five minutes of class, and is followed by the opening prayer.

By having you log in and take the daily update quiz, I also get to see who is in class, in case I need a roll sheet and I did not take roll in some other way.

### 4.2.1 Study Time

Generally I give you the opportunity to tell me how much study time you have accumulated since the last reporting. Normally this is reported on the first class of the week, and covers the prior week (Sunday through Saturday).

### 4.2.2 Comment

Generally I also give you an opportunity to make an anonymous comment. This can be anything you want to say. It might include announcements, such as birthdays or concerts. It might include questions. It can be a simple greeting.

Comments provide a chance for each student to say something without the embarrassment of everyone else knowing who said it. You can say how

unfair you think I am for something. You can ask about something you find confusing.

I introduce it something like this:

If you wish, you can type in a comment, question, announcement, or other statement at the start of class for us to consider. Or you can leave this blank.

This is a good opportunity to ask about something you find confusing.

The identity of the questioner (you) will not be disclosed to the class, and normally I will not check (although I could). My goal is for this to be anonymous.

### 4.2.3 Genuine Questions

I may include genuine questions in the daily update, and these can be graded. It's kind of unpredictable.

## 4.3 Exams

DCQuiz was originally developed for giving tests. My problem was handwriting, actually. Students would take tests on paper and sometimes I could not read what they had written.

So I cobbled together an early version of DCQuiz to present the questions and collect the answers.

I got a couple of additional wonderful benefits, almost immediately.

First, I got the ability to grade students anonymously. All I was seeing was their answer. Not their handwriting. Not the color of their ink. Not their name at the top of the paper. It was wonderful. I could grade things without so much worry about whether every student was being treated fairly.

Second, I got the ability to share my grading results with every student in the class. Each student can see, not only the scores earned by other students, but the actual answers that other students put to each question. This gives students the ability to learn from each other.

Third, it gave students a way to verify that they were being graded fairly compared to their fellow students. If you can see your own answer, and see

that everyone with higher points gave a better answer, that is a good thing. If you think your answer is better, it gives you a reason to come and see the teacher so you can argue for more points, or you can be taught the reasons for their answers getting more points.

Fourth, it gave me the convenience of grading anywhere without carrying a stack of papers. I could grade on vacation. (Wait. Doesn't that make it a not-vacation?) I could grade in class, or in my office, or at home.

Fifth, although I never did this, it theoretically has the ability for me to let other people be graders. But I never did this.

#### 4.3.1 Taking Exams

As it currently operates, DCQuiz lets you, the student, log in and see a list of quizzes. (The grade book is actually just another quiz, but it is one where I enter grades that you earned some other way.)

Quizzes typically have starting and ending times. Before the quiz starts, there is a note telling when it will start. As the quiz gets closer, like within an hour or two, an actual count-down clock will appear telling you how long until the quiz is available.

Once you start the quiz, if it has an ending time, you will be able to see a count-down timer telling you how much time you have left.

As you take a quiz, you can see the main menu, the question menu, and the question page.

**Main Menu:** The main menu was already mentioned. That's where you see what quizzes are available.

**Question Menu:** The question menu shows you what questions are on this quiz. It lets you select a question to work on. It shows you which questions you have answered already. It shows you which answers have already been scored. It lets you say that you are done. It lets you cancel the quiz (if that is allowed).

**Question Page:** The question page shows a single question, and lets you type in your answer. Some questions only allow a single-line answer. When you press ENTER it takes you automatically to the next question. Other questions let you type in several lines.

**Early Grading:** The question page may allow an option for early grading.

If you think you have given your final answer, you can submit it for early grading. If I have time, I will grade it while the test is still under way. That could give you confidence to answer related questions, knowing that you got something right.

**Throwbacks:** Along with early grading, I sometimes do something that I call a “throwback.” That is when I look at your answer, and I think it is very close, but maybe you missed something. If so, I may unsubmit it for you. Then it will show up on your list of questions again. You can look at it and read the question again, and maybe realize what it was that you had not noticed before.

### 4.3.2 Reviewing Exams

When an exam is finished, DCQuiz lets me, the author of the exam, share it with you, the student who took the exam.

You can see reviewing opportunities on the main menu.

After selecting an exam to review, you will see a question menu similar to the one that was used for taking the exam. But instead of seeing your answer, you will see all the scores that were earned, with your score highlighted. If yours is the top score, it will appear first. If it is the bottom score, it will appear last.

You can select a question to drill down and see more details. Specifically, you can see each of the answers provided by each student that wrote an answer. And you can see the score it received. And you can see any notes the grader (me) may have made while grading.

This is intended to (a) let you teach yourself by seeing examples of work by other students, and (b) let you verify that you were graded fairly. (Every once in a while, maybe a few times per semester, a student will see that I entered their grade wrong, or I overlooked something. This is your chance to get errors fixed.)

Sometimes an exam is not open for review. The teacher gets to decide. But even if the exam is closed, you can still see the question menu (with the questions blanked out), and you can see your score and everyone else’s score. Questions and answers are not available, but scores are available, even long after you took the test.

Sometimes an exam is deleted or revised and reused. The teacher gets to

decide. When an exam is deleted, all questions and answers and scores are also deleted. After that, there is no way to see anything about that exam.

I generally revise and reuse the daily update exams. This causes all answers and scores to be deleted, but I keep the questions and just modify them for the next class meeting.

## 4.4 Other Features

DCQuiz has other features, such as the ability to limit where a test is taken, or to require a special code to access a test. Those features will be explained in class if they are ever needed.

## Chapter 5

# Activities General Information

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We assume you are studying outside of class time, and that the text book that I provide contains enough background information to avoid lots of lecturing in class.

My intention is that we will do in-class activities many times through the semester.

Part [I](#) (page [56](#)), the Activities unit, will be updated as new activities are assigned. Check there for activity details.

This current chapter explains the general rules that apply to each of the types of activities that will be assigned.

**Discussed** means the date we talked about it in class.

**5pt Due Date** means the date by which you must complete the assignment for it to earn 5 points.

**4pt Due Date** means the date by which you must complete the assignment for it to earn 4 points, if you miss the 5pt Due Date.



**3pt Due Date** means the date by which you must complete the assignment for it to earn 3 points, if you miss the 4pt Due Date.

The 3pt Due Date is usually **Tue, Apr 8, 23:59**.

23:59 means 11:59 PM.

If you are submitting something after the 5pt Due Date but before the 3pt Due Date, you must either submit it by email or else notify me by email so I know to grade it.

**Grading Label** means a short label I use to track this activity for grading purposes. Online activities have labels that start with o. GradeBot activities have labels that start with g. Command-line activities have labels that start with c.

Grades will be posted to the “IT 240 Activities” grade book in the column specified by the grading label.

## 5.1 oXX: Online General Rules

Online tasks generally follow these rules. Exceptions and clarifications are provided for each task.

**Label:** Each online task has a grading label consisting of the letter “o” (for online) followed by (normally) two other characters that specify which online task it is.

**Task:** Create a webpage (index.html) or CGI program (index.cgi) that is properly linked to the CIS 101 student projects page. It should clearly display your name. Other requirements vary by task.

**How to Submit:** Create a webpage properly linked to the student projects page. I normally grade everyone’s submissions at once.

**Late Work:** If you complete or improve your work so that regrading may be justified, tell me so via email. Follow the email rules in section [5.2](#) (page [48](#)) in the construction of your subject line.

## 5.2 Email Submission Rules

In some cases, I require you to submit your work by email. When email is involved, there are a few rules I need you to follow.

If your program violates the rules enough that grading becomes difficult, I will probably reply to your submission telling you what rules you violated and asking you to fix and resubmit.

### 5.2.1 To: Line

You can email to `doncolton2@gmail.com`. That is my preferred email address.

If you cannot use that, you are welcome to email to `don.colton@byuh.edu`. They both ultimately go the same place, so you do not need to send to both. Either one is fine.

### 5.2.2 Subject Line

The subject line of the email must be as follows:

```
it240 label lastname, firstname
```

The reason for this rule is to facilitate the recording of grades. When I receive your email, it may be in the midst of many other emails from other students. I need to keep things straight so that I can record your grade properly.

The `label` part is replaced by the grading label for that assignment.

The `lastname` part is replaced by your own last name.

The `firstname` part is replaced by your own first name. This is the name that you asked me to use for you. I use that name in my grade book.

When I go to record your grade, I scan down my grade book, which is sorted by lastname and firstname. If I do not see the lastname and firstname that you provided, it requires extra steps for me to verify which person should receive credit. I would prefer to have you do those extra steps instead of me.

So, for example, if I were submitting task p1 and my lastname were Colton and my firstname were Don, I would use this subject line:

```
it240 p1 Colton, Don
```

## Chapter 6

# Standard Rules

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---

There are some standard rules that apply to most of the assignments. This chapter has a quick run-down of the rules with some explanation as appropriate. Each assignment may have additional or different rules, but these are the typical rules.

### 6.1 Voting

You may see a requirements paragraph like this:

**Voting / Bonus Points:** Extra credit up to twenty percent will be awarded based on a vote in class among your peers. Students will rate each other's work for creativity and overall

appeal. To be included in the vote your webpage must be essentially complete by the “Vote Ready” deadline.

This is typically done during the first few minutes of class on the day that the assignment was due.

## 6.2 Validation

You may see a requirements paragraph like this:

**Validation:** Clearly provide a working link to do HTML validation of each page. Make sure each page validates cleanly. Clearly provide a working link to do CSS validation of each page. Make sure each page validates cleanly.

This is judged by me clicking on your HTML validation link, and on your CSS validation link.

## 6.3 Attribution

You may see a requirements paragraph like this:

**Attribution:** Clearly and properly credit all professional-looking content (images and wordings), either where they appear or at the end of your webpage. (a) If you own the copyright, say so. (b) If someone else owns the copyright, say who and where you got it. If possible provide a link to the webpage where you found the content. (c) If appropriate, end with wording like “All other images and text were created and are owned by me.” (d) Make your attributions easy to find and read.

If you are skilled enough to create content that looks professional, make sure you explicitly say that the content is something you created. If you leave me guessing, I may decide that it looks stolen. Do not take offense. This is actually a compliment to your abilities. But it is better to explicitly claim credit for your work.

## 6.4 Style

You may see a requirements paragraph like this:

**Internal Style Sheet:** All styling must be in a style section in the head of each webpage. No style= attributes are allowed in the body of your webpages. You are not allowed to use <br> for styling. You are permitted to use id= or class= to apply styling as needed.

This is judged by me looking at your page source and searching for the word “style” wherever it might appear on your page.

## 6.5 SEO

You may see a requirements paragraph like this:

**Search Engine Optimization:** Provide (a) a well-written title (up to 50 char), (b) well-written meta description (up to 150 char), (c) heading, and (d) appropriate content. Well-written means helpful, user-friendly, and crisp (succinct). Also (e) clearly identify yourself as the author and (f) explain the purpose of the task.

This is judged by reviewing your page source.

## 6.6 Regrade

I want everyone to get full credit on every assignment.

If you do not get full credit for your work on any assignment, I will give you one or more reasons for your grade. You can correct those problems and ask for a regrade.

If you do not understand my reasons, ask someone what I mean. You can ask me, in person or by email. If by email, please provide my exact wording and I will interpret it for you.

When I do a regrade, I will check your stated deficiencies first.

If your new work does not correct the deficiencies that I previously reported, I will probably reply with “still broken” or similar wording.

If your new work corrects the deficiencies that I previously reported, then I will complete a thorough regrading of your work. This can result in new errors being discovered and reported (and another chance for regrade), or it can result in a finding of full credit.

Before asking for a regrade, it is best to make **absolutely sure** that you have read the requirements for the assignment, and that you have verified you are meeting those requirements.

## 6.7 Research vs Copying

We learn by watching others and then doing something similar.

Sometimes it is said that plagiarism is copying from one person, and research is copying from lots of people.

The following is assumed to be understood, and will not be repeated for each assignment.

When you are having trouble with an assignment, I encourage you to look at not just one, but half a dozen or more of the pages done by your fellow students. Study them. See what you can learn from them. Do not automatically trust that they are right. They may be wrong.

Do not just copy. Do your own work. When I review page source code, sometimes I see quirky ways of doing things. They appear to work even though they are wrong. And then I see someone else that has done it exactly the same way. This does not feel like “doing your own work.” Cut and paste is pretty much an honor code violation. Read and learn is totally okay. Copying other ideas is okay. I don’t want to see any cut and paste.

When I see these quirky ways of doing thing, I am strongly tempted to give someone a failing grade, maybe even for the semester. Luckily it can be hard to tell who copied and who was the source. But maybe I will give Fs to both students and see who complains. Please do not force me to make

such a decision.

## Unit I

# Projects Assigned



This part of the study guide lists the projects that have actually been assigned, or soon will be.

The words “project,” “task,” and “assignment” are used to mean pretty much the same thing as each other in this document. Each thing I ask you to do will be a “portfolio project” (or “portfolio task” or “portfolio assignment”).

The phrase “due date” means the date by which you should have the assignment done so that you can consider yourself to be caught up with your classwork.

The word “deadline” means the date beyond which you cannot receive credit for your work unless you beg and grovel and have a really good excuse. And maybe not even then. A lot of work might never get done if it weren’t for “the last minute.” Accordingly we have a last minute, and it is called the deadline.

The period of time between the due date and the deadline is sometimes called the “grace period.”

The “grading label” is a short code that is used both in this study guide and in the gradebook to identify and track grades for activities.

## Chapter 7

# Task template

## Webpage Template

In general each webpage you create will be required to meet these requirements, which I call the Common Requirements.

- \* has proper DOCTYPE, head, meta charset
- \* has informative title and meta description.
- \* has style section even if it is blank.
- \* body exists.
- \* HTML validation: link in footer, validates cleanly.
- \* CSS validation: link in footer, validates cleanly.
- \* Visit counter in footer.
- \* Author: named in footer, links to homepage.

The good news is that you can create a starter file or **template** and use it as the basis for each webpage you create. Just customize it as needed and add the other elements required by the specific assignment. Below we talk more about the elements of the template.

### 7.1 The Actual Template

```
<!DOCTYPE html><head lang=en><meta charset=utf-8>
<title>50 char or less</title>
<meta name=description content="150 char or less">
```

```
<style type=text/css>
/* your CSS goes here */
</style>
</head><body>
<p>
<a href=/it240/>Author: Don Colton</a> &nbsp;
Validate: <a href="http://validator.w3.org/check?uri=referer">HTML</a>
<a href=http://jigsaw.w3.org/css-validator/check/referer>CSS</a> &nbsp;
You are visitor <script src=http://dc.is2.byuh.edu/counter/></script>. Welcome!</p>
</body>
```

## 7.2 Doctype

**DOCTYPE:** The `<!DOCTYPE html>` tag identifies your webpage as being HTML5.

## 7.3 Head

**head:** The `<head lang=en>` tag identifies the start of the head of your webpage, and specifies that the language is English.

**meta charset:** The `<meta charset=utf-8>` tag identifies the character set that will be used on your webpage. Normally we use **utf-8**. **UTF** stands for **UCS** Transformation Format, 8 bit. **UCS** stands for Universal Character Set.

**title:** The `<title>` and `</title>` tags enclose a title for your webpage. It should normally be less than 50 characters long. It is important for **SEO** and to decorate the tab in tabbed browsers. **SEO** stands for Search Engine Optimization.

**meta description:** The `<meta name=description content="something">` tag describes the content of your webpage. It should normally be less than 150 characters long. It is important for **SEO**, both for indexing and for describing your page to people that are searching.

**style:** The `<style type=text/css>` and `</style>` tags surround your in-page CSS statements. CSS stands for Cascading Style Sheet. CSS is how you do your styling.

The head section can explicitly end with `</head>` but this is implied when you start into the body.

## 7.4 Body

The body section can explicitly begin with `<body>` but this is implied when you use your first body statement.

Content tags including `h1`, `p`, and `a`, can only appear in the body. Using one of these automatically ends your head and starts your body.

**link:** The `<a href=xxx>yyy</a>` construct creates a hyper link. The `xxx` part tells what you are linking to. The `yyy` part tells what the user can click on. The `xxx` part must be quoted if it includes certain special characters, specifically the question mark.

**Valid HTML:** The `<a href="http://validator.w3.org/check?uri=referer">HTML</a>` tag links to the w3.org HTML validator. When you click on this link, it will check to see if your webpage HTML is valid or not. It is mostly accurate.

The `<a href=http://jigsaw.w3.org/css-validator/check/referer>CSS</a>` tag links to the w3.org CSS validator. When you click on this link, it will check to see if your webpage CSS is valid or not. It is mostly accurate.

**script:** The `<script src=xxx></script>` construct inserts JavaScript into your webpage.

In our example, `xxx` is `http://dc.is2.byuh.edu/counter/` and it inserts JavaScript that tells how many visitors have been to your webpage.

**ending:** The `</body>` tag is optional and tells that your body has ended. It is a good idea to include it, just for clarity to any future webpage author that may use or modify this page. It is implied by end of file.

The `</html>` tag is optional and tells that your html has ended. I usually omit it. It is implied by end of file.

## Chapter 8

# Task 1hp

## Homepage v1

- Status: Officially Assigned
- Discussed: Mon, Jul 14
- Vote Ready: Wed, Jul 16, 14:00
- Deadline: Fri, Aug 22, in class
- Grading Label: **1hp**
- Point Value: 20

Summary: Create a simple HTML web page that has a heading (h1), bold text (b), italic text (i), and an image (img).

Required: Create a web page.

**Picture:** The picture must be of you, standing by the GCB sign, doing the shaka hand gesture. The sign must be identifiable (not just a corner). The gesture must be identifiable. The picture should be correctly oriented (upright, not sideways).

**Styling:** No particular CSS styling is required for this task. You are welcome to style it using things like centering and colors. If you do use colors, please take care to have adequate contrast between the foreground and background colors, including for links that have not been visited and that have been visited.

**Scrolling:** When displayed on a Firefox browser at 100% size, the entire page should be visible on a typical lab computer with little or no vertical

scrolling, and no horizontal scrolling.

An example of doing this task is provided in the textbook. You are welcome to copy it, but you must fix the following aspects:

- Fix the title. It should not be “50 char or less”.
- Fix the meta description. It should not be “150 char or less”.
- Fix the author. It should not be “Don Colton”.

The key things you will demonstrate are:

- You can cope with cPanel.
- You can create a web page in the proper directory.
- You can use h1, b, and i tags.
- You can upload and display a picture.
- You can control the displayed size of the picture.

## 8.1 Grading Rubric

Required Essentials (zero if missing):

- \* Properly linked to student projects page.
- \* h1 includes your name.
- \* Some text is plain, some bold, some italic.
- \* Picture has you at GCB sign doing Shaka.
- \* Picture width=500.

**General Rules:** Pages must link properly to the student projects page. Pages must be written in HTML5. Contrast between background and foreground colors should be sufficient for me to easily read the content. Pages must include validation links and a visitor counter. Pages must be your own work, typed entirely by you unless other rules allow cut-and-paste for some or all of the webpage. The validation links and visitor counter can be done by cut-and-paste.

**Voting / Bonus Points:** Extra credit up to twenty percent will be awarded based on a vote in class among your peers. Students will rate each other’s work for creativity and overall appeal. To be included in the vote your webpage must be essentially complete by the “Vote Ready” deadline.

**Validation:** Clearly provide a working link to do HTML validation of each page. Make sure each page validates cleanly. Clearly provide a working link to do CSS validation of each page. Make sure each page validates cleanly.

**Regrade:** This assignment is subject to the late work / regrade policy stated in section C.5 (page 111). You can request a regrade after the due date by visiting with me in person during class.

## Chapter 9

# Task dn

## Domain Name Creation

- Status: Officially Assigned.
- Discussed: Fri, Jul 18.
- Due Date: Fri, Jul 18, 23:59.
- Deadline: Wed, Jul 23, 23:59.
- Grading Label: **dn**
- Point Value: 20

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---

Summary: Create a personal domain name for continued use throughout the semester. Send me an email that tells me your domain name.

Chapter 35 in the text book reviews domain name creation in detail.

Warning: Even though this should be easy, sometimes it is not, so proceed with care.



## 9.1 dot.tk

### 9.1.1 Create a Dot TK Account

Go to <http://dot.tk/> and create an account. Dot TK is the domain name registrar for the TK domain. TK is the country code for Tokelau. Tokelau is a territory of New Zealand.

Click on “Login to My Dot TK.”

One option uses an email address and password. I strongly recommend this option. Provide your email address. Invent a password, up to 15 characters in length. Create your account. Log in.

Go to the Profile tab. Type in your name.

### 9.1.2 Select and Register Your Domain Name

Go to the Domain Panel. Click on “Add a domain.”

Recommended: Pick something dignified that you would be comfortable using with a potential employer when showing them your portfolio. Others will see the domain name you select, and it will be used to access your work in this class. Short names are usually better.

### 9.1.3 Set Up Domain Name Services

DNS is a service that converts domain names into IP addresses.

Browsers will use your domain name to ask your registrar for your IP address. Your registrar will need some way to direct traffic.

At <http://www.dot.tk/> there are currently three choices.

I recommend option (c).

(a) Redirect to another domain name, such as yourname.is2.byuh.edu. Avoid this option. **THIS WILL NOT WORK FOR US.**

(b) Use the dot.tk registrar's DNS server. This is acceptable. They will need your IP address. It is 216.228.254.11.

In this example, I am directing my .tk domain and two subdomains to point to the same IP address (216.228.254.11).

**Domain settings for this domain**

**IT240.TK**

☐ Domain forwarding
 ☒ Dot TK DNS Service
 ☐ Custom DNS

**Use Dot TK Free DNS Service**  
 Dot TK can also supply you its free Dot TK DNS Service. Just configure your A, CNAME and MX records and we'll take it from here.  
 Your settings are updated successfully.

Type	Host Name	IP Address	
A Record	240.it240.tk	216.228.254.11	Remove
A Record	it240.tk	216.228.254.11	Remove
A Record	wp.it240.tk	216.228.254.11	Remove
A Record			Add new

Save Changes

(c) Use another DNS server. This is acceptable. Our DNS server is is2.byuh.edu.

In this example, I am directing .tk to use my DNS (is2.byuh.edu) to handle everything.

**Domain settings for this domain**

**IT240.TK**

☐ Domain forwarding
 ☐ Dot TK DNS Service
 ☒ Custom DNS

**Use my own DNS Services**  
 Do you run your own name server or do you want to use a DNS service of a third party, please do. Please specify the name servers you wish to use. If your name server is configured within your domain, you need to fill in the IP address of this name server as well (glue record). Otherwise, just leave the IP address field empty.

Host Name	IP Address	
is2.byuh.edu	n/a	Remove
		Add new

When you have done this, you are done with dot.tk (unless you need to make changes later).

## 9.2 cPanel

### 9.2.1 Addon Your Domain To Your IS2 Account

Using cPanel, do the Addon Domains activity. Tell it your new domain.

You will need to assign the addon domain a document root. Use this:

```
~/public_html/it240
```

You will need to assign it an FTP user name. The default is fine. You will need a password. You can let cPanel generate a password. We will never use it, and you can always change it later if you need it.

At this point, your new domain should start working.

### 9.3 Tell Me Your Domain Name

**Email:** You must submit this assignment by sending me an email. The required email subject line is:

Subject Line: `it240 dn lastname, firstname`

In the body of your email give any required information.

At any point after your domain name is registered, whether the cPanel part is done or not, you can notify me of your new domain name.

In the body of the email, put a statement such as:

**My domain name is (whatever).tk.**

Of course, instead of saying (whatever).tk, put whatever it actually is.

If for any reason you change your domain name, let me know.

# Chapter 10

## Task h123

### Headings

- Status: Officially Assigned.
- Discussed: Mon, Jul 21.
- Vote Ready: Wed, Jul 23, 11:00
- Due Date: Wed, Jul 23, 23:59.
- Deadline: Wed, Aug 27, in class
- Grading Label: **h123**
- Point Value: 20

Summary: Create a webpage with headings.

h1: There must be two or more major headings.

h2: For each major heading, there must be two or more secondary headings.

h3: For each secondary heading, there must be two or more third-level headings.

If you do the minimum number of headings, you will have two h1s, four h2s, and eight h3s.

There should be a clear hierarchy within the headings. By this I mean that the h2 items positioned under the h1 should reflect sub-parts of the h1, not just some random other thing or something parallel to the h1. The same goes for the h3 items under each h2. These should be actual headings, and not content themselves.

Specifically, it is not acceptable to simply say “heading one,” etc. You must

come up with a hierarchy that makes some sense. And it must be a hierarchy. The creative aspect of this task is to make the webpage meaningful.

You can cut-and-paste the footer of the page which includes the author and validation links and the visitor counter. All other parts of the page must be typed in directly by you without doing any cut and paste. You are free to look at but not cut and paste from other webpages, including those you have personally done before.

**General Rules:** Pages must link properly to the student projects page. Pages must be written in HTML5. Contrast between background and foreground colors should be sufficient for me to easily read the content. Pages must include validation links and a visitor counter. Pages must be your own work, typed entirely by you unless other rules allow cut-and-paste for some or all of the webpage. The validation links and visitor counter can be done by cut-and-paste.

**Voting / Bonus Points:** Extra credit up to twenty percent will be awarded based on a vote in class among your peers. Students will rate each other's work for creativity and overall appeal. To be included in the vote your webpage must be essentially complete by the "Vote Ready" deadline.

**Validation:** Clearly provide a working link to do HTML validation of each page. Make sure each page validates cleanly. Clearly provide a working link to do CSS validation of each page. Make sure each page validates cleanly.

**Search Engine Optimization:** Provide (a) a well-written title (up to 50 char), (b) well-written meta description (up to 150 char), (c) heading, and (d) appropriate content. Well-written means helpful, user-friendly, and crisp (succinct). Also (e) clearly identify yourself as the author and (f) explain the purpose of the task.

**Regrade:** This assignment is subject to the late work / regrade policy stated in section C.5 (page 111). You can request a regrade after the due date by visiting with me in person during class.

# Chapter 11

## Task li Lists

- Status: Officially Assigned.
- Discussed: Wed, Jul 23.
- Vote Ready: Fri, Jul 25, 11:00
- Due Date: Fri, Jul 25, 23:59.
- Deadline: Wed, Aug 27, in class
- Grading Label: **li**
- Point Value: 20

Summary: Create a list of lists.

The “outer” list must be three or more academic courses that are of interest to you. It must be a non-ordered list.

For each course, there must be three or more bullet points that tell something about that course. You could mention the teacher, whether it is required, or anything else of interest to you. Each must be a numbered list.

New: Use an internal style sheet in the head of your webpage. The style section must style the lists using these two selectors: “li” for the outer list elements, and “li li” for the inner list elements. Explicitly style the outer list and the inner lists, and make the inner clearly different from the outer.

You can cut-and-paste the footer of the page which includes the author and validation links and the visitor counter. All other parts of the page must be typed in directly by you without doing any cut and paste.

Include an appropriate page title, h1 heading, and explanatory paragraph at the top to describe the assignment. Include your name and IT 240 in the h1 or the paragraph.

**General Rules:** Pages must link properly to the student projects page. Pages must be written in HTML5. Contrast between background and foreground colors should be sufficient for me to easily read the content. Pages must include validation links and a visitor counter. Pages must be your own work, typed entirely by you unless other rules allow cut-and-paste for some or all of the webpage. The validation links and visitor counter can be done by cut-and-paste.

**Voting / Bonus Points:** Extra credit up to twenty percent will be awarded based on a vote in class among your peers. Students will rate each other's work for creativity and overall appeal. To be included in the vote your webpage must be essentially complete by the "Vote Ready" deadline.

**Validation:** Clearly provide a working link to do HTML validation of each page. Make sure each page validates cleanly. Clearly provide a working link to do CSS validation of each page. Make sure each page validates cleanly.

**Internal Style Sheet:** All styling must be in a style section in the head of each webpage. No style= attributes are allowed in the body of your webpages. You are not allowed to use <br> for styling. You are permitted to use id= or class= to apply styling as needed.

**Search Engine Optimization:** Provide (a) a well-written title (up to 50 char), (b) well-written meta description (up to 150 char), (c) heading, and (d) appropriate content. Well-written means helpful, user-friendly, and crisp (succinct). Also (e) clearly identify yourself as the author and (f) explain the purpose of the task.

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## Chapter 12

# Task table Tables

- Status: Officially Assigned.
- Discussed: Fri, Jul 25.
- Vote Ready: Mon, Jul 28, 11:00
- Due Date: Mon, Jul 28, 23:59.
- Deadline: Wed, Aug 27, in class
- Grading Label: **table**
- Point Value: 20

Summary: Build several tables. Demonstrate rowspan and colspan.

Chapter 34 of the textbook has helpful information.

Provide an informative title, h1, and introductory paragraph. Identify yourself as the author and explain the purpose of the task.

Create several tables that demonstrate the use of th, tr, td, rowspan, and colspan.

Use CSS styling of the td elements to create a visible border between cells.

Note: In these examples, I use the letters a, b, c, d, e, f, g, h, i. That is boring. You can use whatever content you want. You can use whatever background colors you want. Be creative!

**Table 1** must be 3x3 or larger, and use **th** headings on each column.



<b>a</b>	<b>b</b>	<b>c</b>
d	e	f
g	h	i

**Table 2** must be 3x3 or larger. The top row of the table must be a single colspan and must contain text content. The first column, except for the top row, must be a single rowspan, and must contain text content.

a b c		
d	e	f
g	h	i

**Table 3** must be 3x3 and use colspan and rowspan to create a camera shutter quilt block as follows:

a	b c	
d	e	f
g h	i	

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the purpose of the task.

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## Chapter 13

# Task form Forms

- Status: Officially Assigned.
- Discussed: Mon, Jul 28.
- Vote Ready: Wed, Jul 30, 09:00
- Due Date: Wed, Jul 30, 23:59.
- Deadline: Wed, Aug 27, in class
- Grading Label: **form**
- Point Value: 20

Summary: Create a forms page that features the typical input fields.

Use at least the following form elements:

- \* form action=<http://dc.is2.byuh.edu/echo/>
- \* type=submit, at least two, different names and values.
- \* type=text, at least two, different names and sizes.
- \* type=password, at least one.
- \* type=hidden, at least one, has content.
- \* type=checkbox, one pre-checked, one not pre-checked.
- \* type=radio, at least two sets, each with at least three buttons.
- \* select/option, at least three options.
- \* textarea, at least one.
- \* all field names are different (except radio)

Each field needs a name. The names must be meaningful, not just box1 or

area2. The names should not have spaces in them.

**Radio Buttons:** These are used for selecting among alternatives, like small/medium/large/xlarge or male/female. Exactly one item can be selected. Each button in a group shares the same name. Make sure your items are part of a group that works that way. All buttons in the group must have the same name, which should meaningfully describe the thing that is being chosen.

Except for groups of radio buttons, every field must have its own unique name, which should be meaningful.

**Checkboxes:** Each box is independent, and can be selected or not. For ice cream toppings, you might have: nuts, chocolate, sprinkles, butterscotch, whipped cream. Each needs its own unique name. Checkboxes are used to select options where several (or none) of the options could be selected and would make sense together. Checkboxes are yes-no choices.

Make up your own business case. Here is a sample business case, just to get you thinking: The user wants to order an item of clothing (or something else that is similarly complex). Provide appropriate options to handle (for example) fabric, color, measurements, style, quantity, monogram, whatever.

**General Rules:** Pages must link properly to the student projects page. Pages must be written in HTML5. Contrast between background and foreground colors should be sufficient for me to easily read the content. Pages must include validation links and a visitor counter. Pages must be your own work, typed entirely by you unless other rules allow cut-and-paste for some or all of the webpage. The validation links and visitor counter can be done by cut-and-paste.

**Voting / Bonus Points:** Extra credit up to twenty percent will be awarded based on a vote in class among your peers. Students will rate each other's work for creativity and overall appeal. To be included in the vote your webpage must be essentially complete by the "Vote Ready" deadline.

**Validation:** Clearly provide a working link to do HTML validation of each page. Make sure each page validates cleanly. Clearly provide a working link to do CSS validation of each page. Make sure each page validates cleanly.

**Internal Style Sheet:** All styling must be in a style section in the head of each webpage. No style= attributes are allowed in the body of your webpages. You are not allowed to use <br> for styling. You are permitted to use id= or class= to apply styling as needed.

**Search Engine Optimization:** Provide (a) a well-written title (up to 50

char), (b) well-written meta description (up to 150 char), (c) heading, and (d) appropriate content. Well-written means helpful, user-friendly, and crisp (succinct). Also (e) clearly identify yourself as the author and (f) explain the purpose of the task.

**Regrade:** This assignment is subject to the late work / regrade policy stated in section [C.5](#) (page [111](#)). You can request a regrade after the due date by visiting with me in person during class.

# Chapter 14

## Task ff

### Font Families

- Status: Officially Assigned.
- Discussed: Wed, Jul 30.
- Vote Ready: Fri, Aug 01, 09:00
- Due Date: Fri, Aug 01, 23:59.
- Deadline: Wed, Aug 27, in class
- Grading Label: **ff**
- Point Value: 20

Summary: Use all five font families. Use at least one web font.

Start by giving a helpful `<h1>` and a `<p>` paragraph that describes the assignment. Your name must appear in the h1 or in the paragraph.

Present the five fonts in this order: serif, sans-serif, cursive, fantasy, and monospace. (It makes grading easier.)

For each font family give an `<h2>` heading that tells the font stack being used, followed by a `<p>` paragraph with about five lines of lorem ipsum text, with that font stack styling applied.

You must use the same lorem ipsum text for each of your paragraphs. (See lorem ipsum in the textbook index.)

Each font stack must have at least two entries, with the last one being one of the five major families. Each font in the stack must belong to the same generic family. (Don't put Arial in the serif list, for example.) Be careful

to spell your fonts accurately, and to put quote marks (single or double) around any font name that has spaces in it.

Do not use the same font name in more than one category. Make each font unique.

End by giving links to the html validator and the css validator. Make sure both validators return clean results. You can include a page visitor counter if you like.

You are welcome to do other kinds of interesting styling, like margins, borders, and padding, but please limit your content to the items mentioned above.

Include the following line in your inline style sheet.

```
body { width: 1000px; margin: auto; }
```

Margin auto will center your webpage body on the page, and width 1000px will set it to be 1000 pixels wide.

**General Rules:** Pages must link properly to the student projects page. Pages must be written in HTML5. Contrast between background and foreground colors should be sufficient for me to easily read the content. Pages must include validation links and a visitor counter. Pages must be your own work, typed entirely by you unless other rules allow cut-and-paste for some or all of the webpage. The validation links and visitor counter can be done by cut-and-paste.

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**Validation:** Clearly provide a working link to do HTML validation of each page. Make sure each page validates cleanly. Clearly provide a working link to do CSS validation of each page. Make sure each page validates cleanly.

**Internal Style Sheet:** All styling must be in a style section in the head of each webpage. No style= attributes are allowed in the body of your webpages. You are not allowed to use <br> for styling. You are permitted to use id= or class= to apply styling as needed.

**Font Families:** You must specify and use at least one font family in connection with your webpage. All fonts must be properly specified, including correct spelling of the font names and ending each font stack with one of

the five main fonts.

**Search Engine Optimization:** Provide (a) a well-written title (up to 50 char), (b) well-written meta description (up to 150 char), (c) heading, and (d) appropriate content. Well-written means helpful, user-friendly, and crisp (succinct). Also (e) clearly identify yourself as the author and (f) explain the purpose of the task.

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## Chapter 15

# Task box Box Model

- Status: Officially Assigned.
- Discussed: Fri, Aug 01.
- Vote Ready: Wed, Aug 06, 09:00
- Due Date: Wed, Aug 06, 23:59.
- Deadline: Wed, Aug 27, in class
- Grading Label: **box**
- Point Value: 20

Summary: Apply padding, borders, margins, and outlines to objects on a webpage. Use JavaScript to dynamically change the box model parameters on one of those objects.

- (a) Show an original paragraph or image.
- (b) Show two or more buttons that trigger restyling of your item.
- (c) The restyling must involve box model parameters (margin, border, and padding) in an obvious way.

Use this JavaScript in the head of your document.

```
<script>
function reclass(e,c){
  document.getElementById(e).setAttribute("class",c) }
</script>
```

Here is a style sheet that defines two classes to be used. You can use it as an example, but you must create your own class definitions and box model parameter values.

```
<style type="text/css">
body { width: 1000px; margin: auto; }
.x { padding: 10px; border: red solid 5px;
    margin: 5px; background-color: yellow; }
.y { padding: 20px; border: blue double 20px;
    margin: 10px; background-color: pink; }
</style>
```

Here is some `<body>` code to change the class of an item. We click on a `<button>` to call our JavaScript function “reclass” to find the item whose ID is “abc” and change its class to something new.

```
<button onmousedown="reclass('abc','x')">Red</button>
<button onmousedown="reclass('abc','y')">Blue</button>
<button onmousedown="reclass('abc','z')">None</button>
```

Here is an example of how to mark the paragraphs or images. Establish an ID for the item that will be changed. We recommend that you provide other items, already styled, for comparison.

```
<p class=x>This paragraph is Red style.</p>
<p id=abc>This paragraph changes style.</p>
<p class=y>This paragraph is Blue style.</p>
```

**General Rules:** Pages must link properly to the student projects page. Pages must be written in HTML5. Contrast between background and foreground colors should be sufficient for me to easily read the content. Pages must include validation links and a visitor counter. Pages must be your own work, typed entirely by you unless other rules allow cut-and-paste for some or all of the webpage. The validation links and visitor counter can be done by cut-and-paste.

**Voting / Bonus Points:** Extra credit up to twenty percent will be awarded based on a vote in class among your peers. Students will rate each other’s

work for creativity and overall appeal. To be included in the vote your webpage must be essentially complete by the “Vote Ready” deadline.

**Validation:** Clearly provide a working link to do HTML validation of each page. Make sure each page validates cleanly. Clearly provide a working link to do CSS validation of each page. Make sure each page validates cleanly.

**Internal Style Sheet:** All styling must be in a style section in the head of each webpage. No style= attributes are allowed in the body of your webpages. You are not allowed to use <br> for styling. You are permitted to use id= or class= to apply styling as needed.

**Font Families:** You must specify and use at least one font family in connection with your webpage. All fonts must be properly specified, including correct spelling of the font names and ending each font stack with one of the five main fonts.

**Search Engine Optimization:** Provide (a) a well-written title (up to 50 char), (b) well-written meta description (up to 150 char), (c) heading, and (d) appropriate content. Well-written means helpful, user-friendly, and crisp (succinct). Also (e) clearly identify yourself as the author and (f) explain the purpose of the task.

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## Chapter 16

# Task float Float

- Status: Officially Assigned.
- Discussed: Wed, Aug 06.
- Vote Ready: Mon, Aug 11, 09:00
- Deadline: Wed, Aug 27, in class
- Grading Label: **float**
- Point Value: 20

Summary: See how float and clear affect how a webpage is rendered.

There will be four blocks. Each block will be a p-tag paragraph.

The content is your choice, four paragraphs, each different than the others. It can be lorem ipsum.

Each block will belong to two classes, a general class and one of four specific classes.

The general class will specify padding of 1em, margin of 1em, and float left.

Each specific class will specify a different background color, a different border style, and a different width. Background colors will be light (808080 or lighter) to contrast nicely with the text color. Widths will be 200px or larger.

When the browser viewport is resized, the blocks should float from line to line according to where they will fit.

**General Rules:** Pages must link properly to the student projects page. Pages must be written in HTML5. Contrast between background and foreground colors should be sufficient for me to easily read the content. Pages must include validation links and a visitor counter. Pages must be your own work, typed entirely by you unless other rules allow cut-and-paste for some or all of the webpage. The validation links and visitor counter can be done by cut-and-paste.

**Voting / Bonus Points:** Extra credit up to twenty percent will be awarded based on a vote in class among your peers. Students will rate each other's work for creativity and overall appeal. To be included in the vote your webpage must be essentially complete by the "Vote Ready" deadline.

**Validation:** Clearly provide a working link to do HTML validation of each page. Make sure each page validates cleanly. Clearly provide a working link to do CSS validation of each page. Make sure each page validates cleanly.

**Internal Style Sheet:** All styling must be in a style section in the head of each webpage. No style= attributes are allowed in the body of your webpages. You are not allowed to use <br> for styling. You are permitted to use id= or class= to apply styling as needed.

**Font Families:** You must specify and use at least one font family in connection with your webpage. All fonts must be properly specified, including correct spelling of the font names and ending each font stack with one of the five main fonts.

**Search Engine Optimization:** Provide (a) a well-written title (up to 50 char), (b) well-written meta description (up to 150 char), (c) heading, and (d) appropriate content. Well-written means helpful, user-friendly, and crisp (succinct). Also (e) clearly identify yourself as the author and (f) explain the purpose of the task.

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## Chapter 17

# Task resp Responsive

- Status: Officially Assigned.
- Discussed: Mon, Aug 11.
- Vote Ready: Wed, Aug 13, 09:00
- Deadline: Wed, Aug 27, in class
- Grading Label: **resp**
- Point Value: 20

I want your html and css to be as simple as possible.

Create a webpage that is responsive. Specifically, it must respond properly to three different sizes of screens: small (like a phone), medium (like a tablet or small laptop), and large (like a desktop computer). In real life, you might want to respond to more sizes, but for this assignment, stick with these three.

Pick exactly eight different colors for backgrounds. Five will have content, and should be properly contrasting to the text color. Their colors will not vary in response to media queries. Three will be overall page background, and will vary according to which media query is in control. This use of colors makes it easier for me to verify that your page is working properly.

In your CSS, specify each color exactly once. For the five regions (hd, cnt, nav, ad, ft), the color should be specified before the media queries. For the three backgrounds, the color should be specified inside the media query.

The page will consist of five sections: header, footer, content, nav (navigation), and ads (advertisements). Each must have its own unique background color. Each must have an h1 that identifies which section it is. Each must have several (about three?) lines of text inside. You are encouraged to use lorem ipsum to bulk it out.

Besides these five sections, there should be no other content. Specifically, you should not have any other header before these sections, and you should include your validation links in your footer (not separately).

Repeat: Keep your html and css code minimal. Make it as small and simple as possible to do the job. Specifically, I do not want to see something that looks like a style sheet copied from someplace else on the web. Keep things as simple as you possibly can.

I speak in percentages below, but I am flexible. 50% can be anything close to 50% and I will still be happy. The numbers I have stated are intended to give you a general sense for how things should work.

On the desktop, the core of your webpage must implement a 2-1-3 design with an overall header and footer. The middle section should be a 25-50-25 percent split.

The 2-1-3 design is based on the idea that div1, your content, goes in the middle of the webpage, but goes at the start of your html. Then, div2, your navigation, goes to the left of it, and div3 goes to the right.

On the laptop or tablet, the webpage must implement a 1-2, 3 design. The 1-2 section should be a 66-33 percent split.

On the phone, the webpage must implement a 1, 2, 3 design.

Use media queries to select the styling that should be in effect. For phones, assume the width is 320px or less. For desktops, assume the width is 800px or more. The media queries would look something like this.

```
@media (max-width: 320px) { ... }  
@media (min-width: 321px) and (max-width: 799px) { ... }  
@media (min-width: 800px) { ... }
```

You can use an html layout something like this, with content of your own choosing:

```
<h1>Headers</h1><p>lorem ipsum ...
```

```
<h1>Content</h1><p>lorem ipsum ...  
<h1>Navigation</h1><p>lorem ipsum ...  
<h1>Advertisements</h1><p>lorem ipsum ...  
<h1>Footers</h1><p>lorem ipsum ...
```

Add divs so you can properly float things:

```
<div id=header>  
<h1>Header</h1><p>lorem ipsum ...  
</div>  
  
<div id=content>  
<h1>Content</h1><p>lorem ipsum ...  
</div>  
  
<div id=nav>  
<h1>Nav</h1><p>lorem ipsum ...  
</div>  
  
<div id=ads>  
<h1>Ads</h1><p>lorem ipsum ...  
</div>  
  
<div id=footer>  
<h1>Footer</h1><p>lorem ipsum ...  
</div>
```

The textbook has a chapter that talks about responsive styling and tells how you can accomplish this task.

**General Rules:** Pages must link properly to the student projects page. Pages must be written in HTML5. Contrast between background and foreground colors should be sufficient for me to easily read the content. Pages must include validation links and a visitor counter. Pages must be your own work, typed entirely by you unless other rules allow cut-and-paste for some or all of the webpage. The validation links and visitor counter can be done by cut-and-paste.

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work for creativity and overall appeal. To be included in the vote your webpage must be essentially complete by the “Vote Ready” deadline.

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**Internal Style Sheet:** All styling must be in a style section in the head of each webpage. No style= attributes are allowed in the body of your webpages. You are not allowed to use <br> for styling. You are permitted to use id= or class= to apply styling as needed.

**Font Families:** You must specify and use at least one font family in connection with your webpage. All fonts must be properly specified, including correct spelling of the font names and ending each font stack with one of the five main fonts.

**Search Engine Optimization:** Provide (a) a well-written title (up to 50 char), (b) well-written meta description (up to 150 char), (c) heading, and (d) appropriate content. Well-written means helpful, user-friendly, and crisp (succinct). Also (e) clearly identify yourself as the author and (f) explain the purpose of the task.

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## Chapter 18

# Task xst

## External Style

- Status: Officially Assigned.
- Discussed: Wed, Aug 13.
- Vote Ready: Fri, Aug 15, 09:00
- Deadline: Wed, Aug 27, in class
- Grading Label: **xst**
- Point Value: 20

Create a two-page website where both pages share the same external style sheet. Name the first page `index.html`. Put the second page in the same folder. Name the style sheet `index.css`. Put it in the same folder. The pages must link back and forth between each other using relative addressing.

These are navigation links. Make them easy to find. For example, put the links near the top of each page, or in a navigation panel.

Creativity: You can make the topic of this mini-website anything you would like.

**General Rules:** Pages must link properly to the student projects page. Pages must be written in HTML5. Contrast between background and foreground colors should be sufficient for me to easily read the content. Pages must include validation links and a visitor counter. Pages must be your own work, typed entirely by you unless other rules allow cut-and-paste for some or all of the webpage. The validation links and visitor counter can be done by cut-and-paste.

**Voting / Bonus Points:** Extra credit up to twenty percent will be awarded based on a vote in class among your peers. Students will rate each other's work for creativity and overall appeal. To be included in the vote your webpage must be essentially complete by the "Vote Ready" deadline.

**Validation:** Clearly provide a working link to do HTML validation of each page. Make sure each page validates cleanly. Clearly provide a working link to do CSS validation of each page. Make sure each page validates cleanly.

**External Style Sheet:** All styling must be in an external style sheet, properly linked to the head of the webpage. No other style sections are allowed. You are not allowed to use `<br>` for styling. No `style=` attributes are allowed in the body of your webpages. You are permitted to use `id=` or `class=` to apply styling as needed.

**Font Families:** You must specify and use at least one font family in connection with your webpage. All fonts must be properly specified, including correct spelling of the font names and ending each font stack with one of the five main fonts.

**Search Engine Optimization:** Provide (a) a well-written title (up to 50 char), (b) well-written meta description (up to 150 char), (c) heading, and (d) appropriate content. Well-written means helpful, user-friendly, and crisp (succinct). Also (e) clearly identify yourself as the author and (f) explain the purpose of the task.

**Regrade:** This assignment is subject to the late work / regrade policy stated in section C.5 (page 111). You can request a regrade after the due date by visiting with me in person during class.

## Chapter 19

# Task ps

## Pseudo Classes

- Status: Officially Assigned.
- Discussed: Mon, Aug 18
- Vote Ready: Wed, Aug 20, 09:00
- Deadline: Wed, Aug 27, in class
- Grading Label: **ps**
- Point Value: 20

**Regrade:** This assignment is subject to the late work / regrade policy stated in section [C.5](#) (page [111](#)). You can request a regrade after the due date by visiting with me in person during class.

Create a webpage that demonstrates and explains at least three of the pseudo-classes or pseudo-selectors.

- (a) Write a sentence or two identifying the pseudo thing you are using, and telling about it.
- (b) Demonstrate its use.
- (c) Repeat three times.

For this task, you are encouraged to do your own research. You can also collect ideas from your classmates or other people. Google search “pseudo-classes” to find things that interest you to see how they are done. Then explain and demonstrate them on your webpage.

Examples:

**:hover** - change the background color of a list item as the mouse moves across it.

**:first-line** and/or **:first-letter** - (these two count as one) style the first line of a paragraph differently than the other lines. style the first letter of a paragraph differently than the other letters. Make it twice as big, for example. You can do a “drop capital” if you look hard enough.

**:nth-child(2n)** - style alternating list items or table rows to have somewhat different colors

Warning: Link restyling before and after visited is not a good choice for this task because people cannot really see what is happening. Once they have visited the link, there is no easy way to revert back.

**General Rules:** Pages must link properly to the student projects page. Pages must be written in HTML5. Contrast between background and foreground colors should be sufficient for me to easily read the content. Pages must include validation links and a visitor counter. Pages must be your own work, typed entirely by you unless other rules allow cut-and-paste for some or all of the webpage. The validation links and visitor counter can be done by cut-and-paste.

**Voting / Bonus Points:** Extra credit up to twenty percent will be awarded based on a vote in class among your peers. Students will rate each other’s work for creativity and overall appeal. To be included in the vote your webpage must be essentially complete by the “Vote Ready” deadline.

**Validation:** Clearly provide a working link to do HTML validation of each page. Make sure each page validates cleanly. Clearly provide a working link to do CSS validation of each page. Make sure each page validates cleanly.

**Internal Style Sheet:** All styling must be in a style section in the head of each webpage. No style= attributes are allowed in the body of your webpages. You are not allowed to use <br> for styling. You are permitted to use id= or class= to apply styling as needed.

**Font Families:** You must specify and use at least one font family in connection with your webpage. All fonts must be properly specified, including correct spelling of the font names and ending each font stack with one of the five main fonts.

**Search Engine Optimization:** Provide (a) a well-written title (up to 50 char), (b) well-written meta description (up to 150 char), (c) heading, and (d) appropriate content. Well-written means helpful, user-friendly, and crisp

(succinct). Also (e) clearly identify yourself as the author and (f) explain the purpose of the task.

**Regrade:** This assignment is subject to the late work / regrade policy stated in section C.5 (page 111). You can request a regrade after the due date by visiting with me in person during class.

## Chapter 20

# Task `picf` Picture Float

- Status: Officially Assigned.
- Discussed: Wed, Aug 20
- Vote Ready: Fri, Aug 22, 09:00
- Deadline: Wed, Aug 27, in class
- Grading Label: **`picf`**
- Point Value: 20

Summary: Demonstrate the ability to add images to a long-ish text narrative (like a blog entry), artfully floating them left or right against the text.

Use the basic elements of your responsive webpage (assigned previously), with a header, content, navigation, advertisements, and footer. Instead of 320px use 400px as the transition point from single-column to double-column.

The content should be lengthy enough that the text wrap is obvious. It can be lorem ipsum or something meaningful. It must feature a picture floating to the left of the column of text, with the text wrapping around it. Also a picture floating to the right. Also a stylized “quotation” from your article, in a div that floats either to the left or the right of the text.

Style your floaters (images and quotation) so they have an attractive and non-zero amount of padding or margin to keep them from bumping into your content text.

Your navigation can be totally fictitious but should look like real navigation (on-site links).

Your advertisements can be totally fictitious but should look like real advertisements or off-site links.

**General Rules:** Pages must link properly to the student projects page. Pages must be written in HTML5. Contrast between background and foreground colors should be sufficient for me to easily read the content. Pages must include validation links and a visitor counter. Pages must be your own work, typed entirely by you unless other rules allow cut-and-paste for some or all of the webpage. The validation links and visitor counter can be done by cut-and-paste.

**Voting / Bonus Points:** Extra credit up to twenty percent will be awarded based on a vote in class among your peers. Students will rate each other's work for creativity and overall appeal. To be included in the vote your webpage must be essentially complete by the "Vote Ready" deadline.

**Validation:** Clearly provide a working link to do HTML validation of each page. Make sure each page validates cleanly. Clearly provide a working link to do CSS validation of each page. Make sure each page validates cleanly.

**Internal Style Sheet:** All styling must be in a style section in the head of each webpage. No style= attributes are allowed in the body of your webpages. You are not allowed to use <br> for styling. You are permitted to use id= or class= to apply styling as needed.

**Font Families:** You must specify and use at least one font family in connection with your webpage. All fonts must be properly specified, including correct spelling of the font names and ending each font stack with one of the five main fonts.

**Search Engine Optimization:** Provide (a) a well-written title (up to 50 char), (b) well-written meta description (up to 150 char), (c) heading, and (d) appropriate content. Well-written means helpful, user-friendly, and crisp (succinct). Also (e) clearly identify yourself as the author and (f) explain the purpose of the task.

**Regrade:** This assignment is subject to the late work / regrade policy stated in section C.5 (page 111). You can request a regrade after the due date by visiting with me in person during class.



## Chapter 21

# Task toc

## Table of Contents

- Status: Officially Assigned.
- Discussed: Fri, Aug 22
- Vote Ready: Mon, Aug 25, 09:00
- Deadline: Wed, Aug 27, in class
- Grading Label: **toc**
- Point Value: 20

Summary: Construct a Portfolio Homepage. It will replace your current homepage at whatever.tk. (You can move your old homepage elsewhere or just delete it.) This means that if you do not yet have credit for your original homepage, you must hurry.

(The words “table of contents” do not mean that you should use `<table>` in your webpage. Instead, it means that at the start of a book or magazine, it is common to have a list of chapters or articles. This is often called a “table” of contents.)

It should be constructed from ul-style (bullet) lists, with at least the following three sections:

(a) Portfolio Projects. Make this section first. In any order of your choosing, list all the portfolio pages you have created. Link to each of them using relative addressing if possible. (Those with a different domain name will require absolute addressing.) Link using the title of each webpage (up to 50 characters). Briefly describe each one (up to 150 characters).

(b) The IT 240 Class. Make this section second. Have in it a link to the course homepage, and a link to the textbook homepage, and a link to the study guide PDF.

Do one or both of these:

(c1) Me and My Work. Have in it links to your work, or your presence on LinkedIn or Facebook or Twitter or Pinterest or other social media sites (if you are willing to have people link to you or friend you). Do you have a profile on Mormon.org?

(c2) My Favorites. Link to two or more webpages, websites, blogs, etc, that you find helpful or inspiring in some way.

**Voting / Bonus Points:** Extra credit up to twenty percent will be awarded based on a vote in class among your peers. Students will rate each other's work for creativity and overall appeal. To be included in the vote your webpage must be essentially complete by the "Vote Ready" deadline.

**Font Families:** You must specify and use at least one font family in connection with your webpage. All fonts must be properly specified, including correct spelling of the font names and ending each font stack with one of the five main fonts.

**Search Engine Optimization:** Provide (a) a well-written title (up to 50 char), (b) well-written meta description (up to 150 char), (c) heading, and (d) appropriate content. Well-written means helpful, user-friendly, and crisp (succinct). Also (e) clearly identify yourself as the author and (f) explain the purpose of the task.

**Validation:** Clearly provide a working link to do HTML validation of each page. Make sure each page validates cleanly. Clearly provide a working link to do CSS validation of each page. Make sure each page validates cleanly.

**Attribution:** Clearly and properly credit all professional-looking content (images and wordings), either where they appear or at the end of your webpage. (a) If you own the copyright, say so. (b) If someone else owns the copyright, say who and where you got it. If possible provide a link to the webpage where you found the content. (c) If appropriate, end with wording like "All other images and text were created and are owned by me." (d) Make your attributions easy to find and read.

**Internal Style Sheet:** All styling must be in a style section in the head of each webpage. No style= attributes are allowed in the body of your webpages. You are not allowed to use <br> for styling. You are permitted

to use `id=` or `class=` to apply styling as needed.

**Regrade:** This assignment is subject to the late work / regrade policy stated in section [C.5](#) (page [111](#)). You can request a regrade after the due date by visiting with me in person during class.

## Chapter 22

# Task fp Final Project

- Status: Officially Assigned.
- Discussed: Mon, Aug 25
- Deadline: Fri, Aug 29, in class
- Grading Label: **fp**
- Point Value: 50 Presentation
- Point Value: 50 Website

The task is to use all the skills you have been taught and the skills you have developed to create a website that really showcases your abilities. Make this something that you could show off to a future employer.

New: All content **MUST** be of your own creation. This includes graphics as well as body text. Exception: You can use computer-generated lorem ipsum text to bulk out your website at your discretion. And you can use facts from any source.

The HTML markup must be your own hand-coded work, and not something generated by a utility (like DreamWeaver). Exceptions: One exception would be markup you insert to present a video you have created (like YouTube). In that case, you can include the markup provided by YouTube. Another exception would be the markup you insert to specify fonts drawn from someplace like Google Fonts.

The CSS must be your own hand-coded work, and not something drawn from a library or other source.

JavaScript, if any, may be drawn from other sources, but if it is beyond the simple things we have done in class, it must be clearly noted somewhere on your website, with an explanation of what it does and where you got it.

**Oral Presentation:** You will present your website to the class. You will talk about what you tried to accomplish, and show what you did accomplish. This oral presentation is part of the overall assignment. You will have five minutes to present and to respond to comments from the audience.

The order of presentation will be determined by randomly drawing numbers from a container. As each number is drawn, the corresponding person will be invited to present their website. Then the next name will be drawn, and so forth. (I will not accept requests for specific presentation times. It creates too many problems.)

Show us what you can do.

**General Rules:** Pages must link properly to the student projects page. Pages must be written in HTML5. Contrast between background and foreground colors should be sufficient for me to easily read the content. Pages must include validation links and a visitor counter. Pages must be your own work, typed entirely by you unless other rules allow cut-and-paste for some or all of the webpage. The validation links and visitor counter can be done by cut-and-paste.

**Validation:** Clearly provide a working link to do HTML validation of each page. Make sure each page validates cleanly. Clearly provide a working link to do CSS validation of each page. Make sure each page validates cleanly.

**External Style Sheet:** All styling must be in an external style sheet, properly linked to the head of the webpage. No other style sections are allowed. You are not allowed to use `<br>` for styling. No `style=` attributes are allowed in the body of your webpages. You are permitted to use `id=` or `class=` to apply styling as needed.

**Font Families:** You must specify and use at least one font family in connection with your webpage. All fonts must be properly specified, including correct spelling of the font names and ending each font stack with one of the five main fonts.

**Search Engine Optimization:** Provide (a) a well-written title (up to 50 char), (b) well-written meta description (up to 150 char), (c) heading, and (d) appropriate content. Well-written means helpful, user-friendly, and crisp (succinct). Also (e) clearly identify yourself as the author and (f) explain

the purpose of the task.

**Unit II**

**Exam Help**

## Chapter 23

# Exam Overview

There are seven exams. Each exam covers about 30 questions and takes about five minutes to complete. I generally allow about 10 minutes for taking each exam so you do not feel undue pressure.

The exams are mostly memorization, and are entirely covered in the IWDD text book (<http://iwdd.tk/>, Introduction to Website Design and Development).

Most of the questions (90% or more) require a very short and exact answer. A few questions (maybe two or three per test) allow you to state the answer in your own words.

Practice tests are available to help you learn (memorize) the questions and answers. Normally the questions are presented in the same order that they appear in the text book.

On the actual exams (not the practice tests), the order of the questions is randomized to force you to associate answers with questions rather than with the order in which things appear.

### 23.1 Q1: Basics

The first exam covers Basics.



## **23.2 Q2: HTML Part 1**

The second exam covers HTML markup in general.

## **23.3 Q3: HTML Part 2**

The third exam covers HTML attributes, lists, tables, and forms.

## **23.4 Q4: CSS Part 1**

The fourth exam covers the Box Model, with emphasis on margins, borders, and padding.

## **23.5 Q5: CSS Part 2**

The fifth exam covers colors and font families.

## **23.6 Q6**

The sixth exam covers JavaScript and Appendix Part 1.

## **23.7 Q7**

The seventh exam covers Appendix Part 2.

## Chapter 24

# HTML Structure

The first part of an HTML document is the doctype declaration.

```
<!DOCTYPE html>
```

After the DOCTYPE, the next two parts are the head and the body.

In the head, we specify the meta elements.

The meta elements include meta charset and meta description among others.

We also specify the title.

We also specify the inline stylesheet and any linked (external style sheets).

We can also specify as much JavaScript as we wish, and it will be processed before the page is rendered.

## Unit III

# Appendices

## Appendix A

# On-Campus DNS Issues, and using 8.8.8.8

Sometimes students report that they cannot view class webpages from various places on campus.

The short answer is that this is a DNS problem. The long answer is that we are working with the powers that be to get things fixed, but sometimes things are “complicated.”

This seems to affect students in on-campus housing the most, but also affects computers in offices and labs that are not part of the CIS department.

Fortunately, there is a work-around.

The work-around is to change your DNS to use **8.8.8.8** or another of the public DNS servers on the Internet. (8.8.4.4 also works, and 4.2.2.2 is reported to work but I have not tried it myself.)

<https://developers.google.com/speed/public-dns/docs/using> gives instructions for changing your own computer’s DNS settings to avoid this problem.

If your problem is with a laptop, you can bring it to class or to the CIS Systems Administrator, Micah Uyehara, in GCB 106, for assistance.

## Appendix B

# Web Hosting for IT 240

The Computer and Information Sciences (CIS) department at Brigham Young University–Hawai‘i (BYUH) provides web hosting for the students in the IT 240 class.

Our web hosting machine is called the IS2 machine.

If you do not already have an IS2 account, we will automatically set one up for you. If your account is not working, contact Micah Uyehara. His office is in GCB 106, near our classroom. Stop by and visit him.

Your IS2 username will be your CES NetID. If your NetID was Fred, your login would be “fred” and your domain name would be “fred.is2.byuh.edu”.

Your initial password will probably be your seven-digit BYUH student ID number. The textbook tells you how to change it.

The IS2 machine uses cPanel as its control panel. There is more on cPanel in the textbook.

The IS2 machine uses Apache as the web server. There is more on Apache in the textbook.

## Appendix C

# Grading for IT 240

The typical portfolio project is worth 20 points and consumes one day of class time.

Some assignments may consume more days, and would be worth more points.

### C.1 Seeing Your Grade

<https://dcquiz.byuh.edu/> is where I maintain my online gradebooks.

There will be several gradebooks. One will have your overall grade. Another will have your portfolio points. In connection with your points, there may be comments. They may tell you how your grade was calculated.

Each grade is identified by a short label.

### C.2 Submitting Work

<http://dc.is2.byuh.edu/it240.2131/> is the place to link your portfolio projects. It is the Student Projects page for this class.

Each project will have its own link. They will normally be based off of the domain name you provide to me as one of the projects.

### C.3 Timeline

Assignments made on any given day will normally be due the night before our next class meeting. If a peer bonus is involved, students will evaluate them at the start of that next class.

That means if I am awake at 12:01 AM, I will feel free to grade them. But more likely it will be closer to 8:00 AM.

Example: Assignments made on Tuesday will normally be due Wednesday night, and will be graded on Thursday morning. If a peer bonus is involved, students will evaluate them on Thursday at the start of class.

Example: Assignments made on Thursday will normally be due Monday night, and will be graded on Tuesday morning. If a peer bonus is involved, students will evaluate them on Tuesday at the start of class.

Late work and do-overs are accepted subject to the two-week late work policy.

### C.4 Late Work and Do-Overs

Each task has a deadline. It is stated explicitly where the task is explained. If it is blank, it means I have not yet assigned a deadline.

Late work and do-overs will sometimes be accepted as much as to two weeks late, or until midnight of the last day of class (not counting the final), whichever comes first.

For Summer B, 2014, the last day of class is **Fri, Aug 29**.

Example: An assignment that was due on Wednesday night may have a late-work deadline two weeks later, also on Wednesday night (unless it is the end of the semester).

A do-over is where a grade is already in place but you want to improve it. You are invited to redo any assignment to improve your grade. Do-overs cannot receive extra credit. Their maximum score is 100%.

At the deadline, I may automatically regrade all work that did not yet receive full credit. But you can also mention to me that your work is ready to be graded again. See section [C.5](#) (page [111](#)) for details.

To be safe, for any late work or do-over, you should notify me by email that

your project is ready to be graded again. See the rules for emailing me in section 5.2 (page 48).

I may grade your work right away, or I may wait until the deadline before regrading it. It mostly depends on how busy I am.

## C.5 Regrades

Typically an assignment will have a due date, and I will grade all student work for that assignment soon after that time.

Sometimes after the due date, a student will complete work that did not receive full credit at first, or will make substantial improvements to their work. In most cases I am happy to regrade the work.

You can request a regrade after the due date by visiting with me in person during class. There we can review your work and I can comment on anything that may need attention.

## C.6 Working Together

On portfolio work, you are encouraged to work with (but not just copy) your fellow students. We want everyone to get full credit on every assignment.

Every assignment will have ample opportunities for individual creativity. Duplicate work will not be accepted.

Speaking of creativity, there is a great temptation to borrow images (for example, photos or artwork) or wording created by someone else. (a) Avoid borrowing if possible. Invent your own content. (b) If you must borrow, provide proper attribution. (Credit your sources.)

## C.7 Copyright and Attribution

Something else, related. If you do really high-quality work, it can look like it might have been stolen. So, here is the general rule:

If any material on your website looks professional, particularly the images and the wordings, you must provide an attribution. This includes your own



(professional looking) work. State who created the work, and if possible link to it. If you created it, say so.

## C.8 Plagiarism

This is a reminder to please do your own work. When I review page source code, sometimes I see quirky ways of doing things. They appear to work even though they are wrong. And then I see someone else that has done it exactly the same way. This does not feel like “doing your own work.” Cut and paste is pretty much an honor code violation. Read and learn is totally okay. Copy other ideas is okay. I don’t want to see any cut and paste.

Sometimes it is said that plagiarism is copying from one person, and research is copying from lots of people.

I encourage you to look at not just one, but half a dozen or more of the pages done by myself or your fellow students. Study them. See what you can learn from them. But do not just copy. That is so lame.

## C.9 Full Credit

Each project is described in this study guide, together with the “deliverables” on which it will be graded.

Sometimes the project description may change before the project is assigned. Try to work from a fresh copy of this study guide.

Deliverables are things you must deliver. They are the essence of the assignment.

## C.10 The Rubric

For each assignment, I provide a rubric that shows how the points are earned. Because I cannot perfectly predict the kinds of errors I and my students might make, the rubric might actually change between the time the assignment is issued and the deadline. If the change is major enough, I will also extend the deadline.

Points are assigned as follows:

0: 0% credit, nothing found. 404 or empty page.

1-3: 4-12% credit, incomplete work but headed in a good direction.

25: 100% credit. Essentially Complete.

**Plus Points:** Some projects have plus points. Generally an extra credit feature is awarded plus points for a job well done. Plus points only apply if there are no significant minus points. Late work and do-overs generally cannot receive plus points.

**Minus Points:** Most project grading is based in starting with 100% of the points, and then subtracting points for things that are not right. If nothing is wrong, you get full credit. Minus points can be recovered through submitting a do-over before the deadline.

Here are some examples of minus points: (a) no link to the Portfolio Homepage, (b) no backlink from the Portfolio Homepage, (c) no HTML validator link, (d) HTML validator errors, (e) no CSS validator link, (f) CSS validator errors.

It is possible for the minus points (the penalties) to add up to more than the project is worth. When subtracting, I stop at zero, so your final score can never be negative.

## C.11 Implicit Requirements

There are requirements that are not explicitly stated for every given task.

No cheating. That is an overall requirement. I will not list it with every task. Because it is not explicitly listed, but is still a requirement, it is an “implicit” requirement.

Meet the Deadline. That is a requirement.

Be original. That is a requirement.

Be linked to the place I request. That is a requirement.

There may be other requirements I add here later.

The penalty for failing an implicit requirement might be invented on the spot, while I am grading. It could simply be a zero for the task.

## C.12 Subject to Change

Sometimes while grading I will discover that I was unclear in what I asked for. One or a few students may have misunderstood me and done something that (a) technically matches my stated requirements, but (b) does not match my intended requirements. Oops.

It is rare, but it has happened. I apologize here in advance.

If this happens, I may decide to reword the assignment to clarify my intentions.

(a) I will change the grading rubric in this study guide.

(b) I will grade according to the corrected rubric.

(c) I will allow any students who lost points to make corrections and resubmit their work.

This is part of the reason for having a two-week late work policy.

## C.13 Peer Assessment Bonus: 20%

Some tasks may have a “peer assessment bonus.” (Some do not.) Each task that has such a bonus will clearly state that fact in the task write-up.

Projects that qualify are peer-rated for bonus points.

Students in the class are asked to view and evaluate each of the projects that qualify, and to select the ones they consider to be the best.

The instructor will tell which projects qualify.

The instructor will tell how many can be selected.

The students will select projects for the bonus.

The instructor will add up the scores and calculate the bonus.

The maximum bonus is 20% of the project value.

For a 25-point project, the bonus could be as high as 5 points.

Mostly this is for personal satisfaction. It is recognition for a job well done, as judged by your peers. But enough 20% bonuses could make it possible to totally skip taking the final exam for the class.

This bonus is based on the points possible for the assignment, not counting any other bonuses you may have received.

## Appendix D

# Using a BYUH Library Camera

Many students already have a digital camera (or cell phone, or iPad, or ...). If you do not have an appropriate camera, you can borrow one from the BYUH library.

On the left side of this picture, we see the SD card reader. I make this available to you. It has USB on one end and a slot for the SD card on the other end. It also has a removable cap for each end.

On the bottom of this picture, we see the camera. It is a Nikon Coolpix L3. The resolution is 2592 wide x 1944 high pixels.



On the top center of this picture, we see an SD card. This is the kind that I make available to you. It has limited capacity, 256 MB, and will hold about 200 pictures at maximum resolution, depending on lighting.

On the top right of this picture, we see two AA batteries. You will need to provide your own batteries.

The BYUH library has 18 cameras and several tripods available for checkout

to authorized students.

To authorize you, once the semester begins I will provide a list of students to the library, along with the identity of the class (IT 240). Once the library has the list, students on the list will be able to check out cameras and tripods until the date specified, which will be the last day of class (Fri, Aug 29).

The cameras can be picked up at the Media Services desk which is directly across the foyer from the main entrance of the library.

The checkout time is limited to four hours.

The tripods include a piece that screws into the bottom of the camera. In this picture, it has a red circle around it. Do not lose it. Without it, the tripod is useless.



The library does provide a cable you can use to get your images off of your SD card. I also provide you with a way.

### **Things I Provide**

I do not provide batteries.

I do provide SD memory cards. You can check out a small-capacity SD memory card from me for your use this semester.

I do provide SD-to-USB adaptors. You can check out an adaptor from me that will allow you to take your pictures off the SD card and put them onto your computer.

When you receive an SD card and/or adaptor from me, I will check it out to you and make a note of it. The checkout time can be for the entire semester. You must return the checked-out items to me by the last day of class (Fri,

Aug 29).

## Appendix E

# Using My JavaScript Counter

I have created a simple pageview counter that you are invited to insert into your webpages for this class.

The important line is this:

```
<script src="http://dc.is2.byuh.edu/counter/"></script>
```

You might use it in a paragraph like this, somewhere on your webpage.

```
<p>Welcome! You are visitor number  
<script src="http://dc.is2.byuh.edu/counter/"></script>  
to this webpage.</p>
```

What this means: **script** is an HTML tag to identify JavaScript. **src=** says the JavaScript is coming from another source, not immediately after the script tag. **dc.is2.byuh.edu** is my domain name. **counter** is a folder in my document root, and in that folder is a program, **index.cgi**, that does the counting and returns the current count. **/script** closes it out.

So this is just a request to insert a script into your webpage. The actual JavaScript that will be inserted is simply this:

```
document.write("n");
```

The n will actually be a number. It will be the number calculated by my counter program.



It does this based on the referrer (the page in which it is included). So if you put this code on several different pages, each page will have its own count.

### **Click Fraud**

We should talk briefly about click fraud.

My counter is not particularly intelligent. It just bumps the count up each time anyone views the page. You can beef up your count simply by hitting the reload button repeatedly. (Get a life.)

Intentionally bumping the counter to deceive someone is called “click fraud,” especially if money is involved. Sometimes advertisers pay for each visitor that views their advertisement. And sadly, click fraud happens a lot. Do a Google search on “click fraud” to see some examples. A smart advertiser would want a more intelligent counter.

A more intelligent counter would only count once per IP address per day, or something like that.

But more intelligent counters are harder to create. Ultimately, this simple counter still gives a reasonable estimate of traffic, if you don’t care that it may have been inflated.

## Appendix F

# Spelling

I offer extra credit for reports of spelling and grammar errors in my formal communications, by which I mean written materials like syllabi, study guides, and text books as well as current portions of webpages. This is very helpful to me in correcting spelling mistakes. And it sometimes gets my students to read my materials carefully.

This has gotten to be sort of a game at times, which makes it fun. We can get into Grammar Nazi mode and be picky, picky, picky. Students will cut and paste my words into a document and then run a spelling checker or grammar checker. Or they will directly open the PDF in a spelling or grammar checker.

You are welcome to do this, but you should be aware that spelling and grammar checkers work by a simplified set of rules compared to real life. If there are two spellings for a word, the spelling checker will commonly only accept one and will reject the other. This does not make the other wrong.

The truth about English, and probably all languages, is that language changes over time. New words are created. New spellings are accepted. New grammar happens. And old grammar is resurrected.

I generally follow the accepted practices as shown in style guides such as the Chicago Manual of Style. But I take exception to certain things like those that are noted below. For things that I have considered and listed below, even though they may show up with a checker, I do not consider them to be incorrect.

My rules are (a) is it commonly done? (b) is it ambiguous? (c) is it pretty?

These are the same rules used by grammarians, but our decisions in any given case may be different.

Here is my list.

**themselves** - Modern usage has tended away from gender-specific words like *himself* in favor of gender-neutral words. I have migrated from *him* and *her* to “singular” **them** as my solution of choice to the gender-neutral dictates of modern political correctness. Some dictionaries do not recognize *themselves* as a word, and instead suggest *themselves*. For plural *them*, this would be correct, but for singular *them*, *themselves* is correct and is documented to have been used as far back in time as the 1400s.

**vs** - Should it have a dot? The usage argument is that in British writing, abbreviations are dotted when the final letters have been dropped, but not when the intermediate letters have been dropped. *Versus* removes intermediate letters. American usage may differ. I do not put a dot after it. I don’t like how it looks with a dot. It is a conscious decision, not an error.

**zeros** - versus zeroes: Both are considered correct. Google says that *zeros* is more commonly used.

**Ambiguous Plurals** - The plural of 15 is 15s, not 15’s. Using an apostrophe generally indicates possession, but people do commonly (and incorrectly) use an apostrophe for plurals when without it the meaning seems less clear. My choice when making a plural that would look ambiguous is to quote the string being pluralized. So, for me, the plural of (a) is (“a”s) rather than (a’s) or (as).

**Ambiguous Quoted Punctuation** - When should punctuation that is not part of a quote be moved inside the quote marks? Typesetters traditionally float a period (full stop) inside a trailing quote mark because it looks better that way. In computing, quote marks typically delimit strings that have special meaning, and putting punctuation inside the marks changes the meaning of the string. I usually float punctuation if it does not change the meaning of the thing quoted. Otherwise not.

**Series Comma** - Some people write a list of three things as (a, b and c), but others write it as (a, b, and c). I write it the second way. This is not an error. Both usages are correct, but I find the first usage to be ambiguous, so I almost always use the second form.

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