

# Syllabus IT403 – Introduction to Internet Technologies: Summer 2022

## Instructor

Betsy Coleman

Use [betsy.coleman@unh.edu](mailto:betsy.coleman@unh.edu) to reach me (*don't use Canvas please*)

Please feel free to approach me with any questions or concerns you may have during the course. I am more than happy to help in any way I can.

## Office hours

**These are held on the CS Dept Online Platform!** Go to <https://csonline.cs.unh.edu/dashboard> to get setup!

I understand that not everyone can make fixed hours – especially in the summer – that's ok – do **not** hesitate to reach out on discord and we can work together there – even if it ends up being asynchronously!

If you make an appointment with me, please contact me beforehand to reschedule it if you are unable to keep it. Failure to keep a scheduled appointment can negatively impact your grade. See the [Attendance and Tardiness](#) section below for details.

You are welcome to raise any questions or concerns you may have with me during these office hours. Of course, you are also welcome to send me questions or concerns by e-mail at any time.

## Web sites

[mycourses.unh.edu](https://mycourses.unh.edu) – This is known as “Canvas.” This is where you will find all modules/readings/assignment dates/schedule etc. Announcements will be made on Canvas and delivered to you via email. It is important that you read email that is sent to you as it will contain important class information.

This course uses the UNH CS Dept Online Platform on Discord (<https://discord.com/channels/687766710282878985/694966212408639528>) . If you have not already done so, you will need to make sure you have access to that Server.

If you haven't visited <https://csonline.cs.unh.edu/login> and connected your Discord account...

You need to register at <https://csonline.cs.unh.edu/login> and connect your Discord account. Then wait, we populate courses once a day. Within 24 hours, you will be populated into your courses!

Need help?? please send an email to [csonline@cs.unh.edu](mailto:csonline@cs.unh.edu)

## Required materials (to be discussed in class)



### **Build Your Own Website the Right Way Using HTML & CSS 3<sup>rd</sup> Edition**

Ian Lloyd

Sitepoint, 2011

ISBN: 978-0-9870908-5-0

This book will act as your introduction to writing Web pages and linking them together to form Web sites. It is also available in electronic format from the UNH Library on the Web.



### **Computer Networking First-Step First-Step Series**

Wendell Odom

Cisco Press, 2004

ISBN: 978-1-57820-101-1

This book will provide the technical background you need in order to understand the basics of how computer networks work.

The Durham Book Exchange usually has the book. I have been able to find a pdf online version of the Odom book.

## Course description

Introductory course exploring the fundamentals of Internet communications with an emphasis on the World Wide Web. Students develop an understanding of the Internet's underlying technologies and learn how to utilize them as contributing members of the Web community. Students become proficient with creating and publishing Web pages using HTML and CSS. No prior knowledge or experience is assumed. No credit if credit earned for CIS 405. (Note CIS 405 is offered at UNH Manchester, and is not related to CS 405 at UNH Durham.)

## Objectives and outcomes

Students successfully completing IT403 should be able to:

- Describe the technologies that form the basis of the Internet and, in particular, the World Wide Web;
- Analyze the interactions among those Internet technologies;
- Apply those technologies to create, publish, and validate self-generated content on the World Wide Web using languages such as HTML and CSS;
- Describe and summarize the fundamentals of data network systems, including switches, routing, cabling, topologies, protocols, and architectures, and distinguish between LANs, WANs, intranets, and internets
- Explain how interactions between two parties on the web can be compromised and methods for ensuring message integrity, confidentiality, authentication, and non-repudiation including public-key encryption and SSL; and
- Explain how networking hardware and software contribute to keeping networks secure.

We may touch on the other topics mentioned in the course description as we go along, but our focus will be on the objectives outlined above.

In achieving these objectives for the course, students will begin their education relative to the following student outcomes for the IT/CS program:

- (1) Client side web development techniques using HTML, CSS, and releasing files to web server via SFTP application
- (2) High level overview of secure computing within networks
- (3) Becoming contributors to the web with a particular understanding of standards and accessibility

For the IT Program

- (4a)  
Foundational introduction to Human Computer Interactions topics  
Foundational introduction to LANs, WANs, the Internet and the full TCP/IP networking stack including details within each protocol

For the CS Program

- (6c) Foundational introduction to LANs, WANs, the Internet and the full TCP/IP networking stack including details within each protocol

## Expectations and policies

### Grading

Your grade in this course will depend upon several aspects of your work. The weightings are as follows:

- **Homework (30%)**

- **Attendance/Participation (10%)** Attending class helps *you*. You will do better grade wise and learn more if you not only “physically” attend class, but mentally as well. Lots of studies bear this out 😊.
- **Project (25%)** A substantial Web Site project at the end of the semester utilizing the skills learned and worked on throughout the semester.
- **Quizzes/Exams (35%)** There will be quizzes throughout the semester and a final exam. Any material covered in lectures or the required readings is fair game.

### **Late submissions**

Assignments are due at the date and time indicated in the assignment description, i.e., they are due at 11:59 PM on the due date. There is an eight-hour grace period until 8am the next day. Assignments may be handed in late at a penalty of 10 percent for one day late and 30 percent for two days late. No assignment may be turned in more than 2 days late. The eight-hour grace period is in effect for the late submissions too.

I will assume that online submissions are complete as of the deadline. If you are not going to have one done by the deadline, *you must notify me by e-mail prior to the deadline*. Then, *you are responsible for notifying me again by e-mail as soon as the assignment is complete* and ready for grading. *If you fail to notify me that an assignment will not be complete at the deadline, I reserve the right to either grade it as it stands*. I also reserve the right to deduct a larger penalty than I might have otherwise if you do not notify me prior to the deadline that an assignment will be late.

All of the above is negotiable if you have a valid excuse. However, it is your responsibility to get special allowances from me **by e-mail**. Even if we discuss such allowances face to face, they will not be considered official until you get me to confirm them in writing. As a general rule of thumb, the sooner you contact me about a difficulty, the more flexibility and forgiveness I am likely to have. And, remember, I will be the one to decide the validity of your excuse, and I will do so in consideration of fairness to your classmates as well as you.

### **Exam grading**

For information on how I grade exams, [see below](#).

### **Missed exams**

Exams and quizzes will be announced so that you can plan and study accordingly. Makeups may be allowed at my discretion, but **only** if you contact me before the exam or quiz is administered with an unavoidable conflict *and* we are able to schedule a makeup time before I return the graded exam or quiz to the class. Be sure to get confirmation of your makeup from me by e-mail to make it official! I will not drop any exam or quiz scores at the end of the semester.

### **Academic honesty**

In this course (as with most courses, and indeed life in general) you will be expected to do your own work. All work which you submit and/or display as your own original work must in fact be your own original work. If any portion of the work which you do for this course is an exact replica or derivation of the original work of another, it is your responsibility to obtain the creator's permission to utilize their work and indicate the extent of the creator's contribution to your work. You will not receive credit for submitting the work of others, so you should take pains to minimize the extent to which you draw upon it.

It is also your responsibility to familiarize yourself with the University's [Code of Ethics](#) regarding the use of campus computing facilities and adhere to it.

Likewise, you will be expected to act as a good citizen within the networked society you are able to access as a UNH student. Use your common sense and good taste and remember that you will be held accountable for all network activity originating from your account.

Potential penalties for failing to abide by these rules can range from zero scores on individual assignments, to failure of the course, to loss of University computing privileges, to (in extreme cases) legal action.

### **Pregrading**

As a rule, since I cannot guarantee that I would have the time to extend the service to all students, I do not "pregrade" the work of any student. Generally, I am not asked directly to pregrade work. Instead, I am asked to do so indirectly. For example, I am often asked by students if I will look over their work before a deadline to see if there's anything wrong. Assuming I then report my findings to the student (which is typically what they have in mind!), this is the very definition of "pregrading." As such, I will not honor such requests.

However, I will do my best to answer all specific questions as quickly and as accurately as possible. If you have a specific question, please feel free to ask it. In fact, you should feel free to ask any and all questions that may arise. However, if I interpret your question as a variation on a request to "pregrade" your work, I will likely refer you to this section of the syllabus for further explanation.

### **Support for students with disabilities**

The University is committed to providing students with documented disabilities equal access to all university programs and facilities. If you think you have a disability requiring accommodations, you must register with [Student Accessibility Services](#) (SAS). Contact SAS at (603) 862-2607 or visit them in 201 Smith Hall. If you have received Accommodation Letters for this course from SAS, please provide me with that information privately so that we can review those accommodations. Note that accommodations cannot be granted retroactively, so it is very important for you to discuss your letter with me as early in the semester as possible.

### **Syllabus subject to change**

Sometimes, courses must evolve throughout the semester in order to meet the needs and interests of the class. Although most of that evolution will not require changes in this syllabus, I do reserve the right to alter this syllabus as necessary during the semester. Whenever substantive changes are made, the newly revised syllabus will be announced and made available in either digital or printed form. It is your responsibility to make note of such announcements and update your understanding of course policies.

## **Quizzes/Exams**

This course will involve Quizzes and at least one major exam. Generally, the quizzes and exams are challenging, but the purpose of this page is to give you some guidance as to what you should expect and how you might prepare.

### **Disclaimer**

This material is intended to act as a study aide, not a formal contract. History has shown that a small number of individuals cannot always tell the difference. While I do not intend this material to be intentionally misleading, I also do not intend to in any way limit the questions I may ask or how I choose to grade those questions.

Everything discussed or assigned in this course to date is technically fair game for the exams. The purpose of this page is to offer some general guidance and suggest strategies to get you started in mastering significant amounts of technical material. You should, however, treat it only as a suggested starting point.

In the end, you are still personally responsible for your own exam preparation. Simply following the suggestions found on this page will not necessarily guarantee that you are adequately prepared for the exams. Use this study guide as a starting point, if you wish, but do not assume it will suffice as your ending point as well. I reserve the right to ask any exam question I determine to be fair.

### **Quiz/Exam format**

The quizzes/exams will likely include a mixture of long answer and short answer questions. Long answers may require you to work with HTML and/or CSS code. Short answers may include multiple-choice, true-false, fill-in-the-blank, and/or any other format that I feel is appropriate for determining the level of mastery of specific course material. Partial credit may be available for some types of questions at my discretion.

### **How to prepare**

The exams will test your mastery of the course material presented in lecture and supplemented by the reading assignments. Since the lectures will cover the most important materials, the focus of the exams will be on material covered in lectures. Therefore, the bulk of your preparation for the exams should focus on the material presented in lectures. However, the reading is meant to

supplement the course material and is technically fair game for exam questions, so if you are confident you have mastered the material from lectures and have time left before the exam, you may find it beneficial to review the reading assignments.

## **Quiz/Test grading**

When assigning partial credit to long answer responses, I use an additive rather than subtractive model. That is, rather than starting with the full number of points allocated to the answer and losing points along the way, you start with no points and earn them as you go. You earn points by:

1. Answering the entire question;
2. Writing with sufficient clarity, breadth and depth to convince me that you actually know what you're talking about;
3. Using technical terms and examples appropriately to support your answer; and
4. Avoiding erroneous statements.

You may earn up to the stated number of points for each response. However, it is important to realize that not everyone earns full credit for every response. In fact, the way I grade, full credit responses are relatively rare. The primary reason for this is that I feel better responses should receive better grades. Therefore, you must work hard to place your response among the best in the class if you want a chance at the best grades.

Also, it is worth noting that there is no minimum or maximum length requirements built into my grading scheme for long answer responses. In the past, I've seen remarkably short responses score very well and exceedingly long responses score very poorly. As a general rule, I advise students not to write just to fill the page, but to use the time available to add any statements in which they have reasonable confidence. Adding statements that are erroneous can work against your ability to earn points, but adding statements that are accurate can help (if they are appropriate to the question).

Short answer questions are graded strictly on the basis of the correctness of the answer. For short answer questions that are worth more than one point, partial credit may be allowed if I determine it is appropriate.

When providing short answer responses, your response must be unambiguous. If I cannot tell with certainty what your response was meant to be, I will consider the response incorrect. This is most commonly an issue with true/false questions, when students try to convert a T to an F, or vice versa. Rather than attempt to convert one answer to another, you should simply cross out the unwanted answer and write the new answer beside it. This can also be a problem in instances of extremely poor handwriting. I will do my best to read whatever you have written. However, if I cannot read an answer I will be forced to assume it is incorrect. So invest the time and effort to write as clearly as possible.

For grading purposes, acronyms are considered equivalent to their spelled out form. In other words, the answers "IP" and "Internet Protocol" are equivalent.

## **Assistance**

To a certain extent, this course will be to you what you choose to make of it. Obviously, I have a responsibility as the instructor to make sure that every student accomplishes the objectives and demonstrates reasonable mastery of the material. But as the course proceeds, you will likely find both opportunities to advance yourself and loopholes through which you can duck. If you jump on every opportunity to advance yourself, you may run the risk of burning yourself out or biting off more than you can chew in one semester. On the other hand, if you seize every loophole you find as a way out, you'll ultimately be cheating yourself out of much of what the course has to offer.

I would recommend that you look to strike a balance. Pursue the opportunities for advancement that most interest you, and if some sort of loophole presents itself at a time when you've got your hands full take advantage of it. To a large extent, each student has the power to focus the course on their personal strengths and avoid their personal weaknesses. Use that power to your benefit, while keeping in mind that you'll get out of this course only what you put into it.

That having been said, you may find that you need assistance striking an effective balance.

### **Assistance with keeping up**

If you find that the pace is too fast or the workload too much, I will do my best to help you develop strategies for keeping up. However, you must assume some responsibility as well.

First, you must make a good faith effort to help yourself. That means you must attend class and team meetings on a regular basis and seek out additional resources for assistance. If you would like advice on resources, such as web sites and books, that may help you achieve your personal goals, feel free to ask me.

Second, as a mature adult it is up to you to recognize your situation and proactively seek assistance to rectify it. I am happy to provide that assistance whenever I can, but you must take the first step of letting me know that you need it. Generally, the best way to accomplish this is to come by and see me in my office, but e-mail works to get the ball rolling.

### **Assistance with ranging ahead**

This course offers almost limitless opportunities to challenge yourself and advance your skills to their next level. To a large extent, how much you choose to avail yourself of those opportunities will be up to you. Should you decide to challenge yourself, I will do my best to help you explore more advanced material. However, you must assume some responsibility as well.

First, you must make a good faith effort to help yourself. That means you must attend class and team meetings on a regular basis. There is a tendency among more advanced students to stop attending classes as the course progresses. If you wish to move ahead into more challenging areas, you cannot do so at the expense of your teammates or classmates. If you would like advice



on resources, such as web sites and books, that may help you achieve your personal goals, feel free to ask me.

Second, if you desire my assistance in your endeavors, you are responsible for asking for it. I will help as much as I can, but I cannot help if I do not know my assistance is needed. Feel free to stop by my office or send me e-mail to let me know.

### **Timing is everything**

Regardless of whether you are seeking assistance to help you keep up or to help you explore more advanced material, timing is everything. The longer you wait to get me involved, the less I am likely to be able to help.

Often, students who are struggling to keep up do not approach me for assistance until the last week or two of the semester. At this point, there is very little I can offer. I am not able to provide extra credit work, and obviously I cannot go back and change all the bad grades earned so far. All the help I am able to offer involves strategies for improving future grades, not altering past grades. As such, the longer you wait the more bad grades you accumulate, and the fewer future grades remain with which I can offer assistance.

Likewise, students who find that the course does not challenge them sufficiently have a tendency to wait until the end of the course to inform me of this fact. While this is generally not as critical from a grading perspective, it does mean that such students have lost an opportunity to address a perfectly correctable situation.

I'll do whatever I can to make your experience in this course as educational as possible, but I can't work magic at the end of the semester. If you are willing to do the work it will require to improve your situation and let me know early enough, we should be able to work together to make it happen.

### **Fair treatment for all**

While I will do what I can to assist those students who show me that they have taken the first steps by helping themselves, I am limited to some degree in what I can do.

University regulations and policies, as well as state and federal laws, are in place to protect the rights of all students equally, and I must work within the boundaries these requirements place upon me. Therefore, I endeavor to make decisions on the basis of fairness to all, even when the result may seem somewhat unfair to an individual's perspective.

One of the most common requests I receive that I must refuse on these grounds is the request for extra credit work. If I offer extra credit work to one student, University policy requires me to make that same extra credit work available to all students. At that point it ceases to be extra credit work, and just becomes additional coursework. As such, it simply isn't practical for me to offer any extra credit work.

The University is committed to providing students with documented disabilities equal access to all university programs and facilities. If you think you have a disability requiring accommodations, you must register with [Student Accessibility Services](#) (SAS). Contact SAS at (603) 862-2607 or visit them in 201 Smith Hall. If you have received Accommodation Letters for this course from SAS, please provide me with that information privately so that we can review those accommodations. I would encourage you to do so as early in the semester as possible, since none of the accommodations are retroactive.

All students should also be aware that the University offers multiple [academic resources](#) to assist all students. I encourage students to take full advantage of all applicable resources to ensure academic success.

## Mandatory reporting

It is important for students to note that I, like most University employees, am considered a **mandatory reporter** under the University's Title IX policies. This means that I am **required** to report any knowledge or suspicions I have regarding sexual discrimination to the University Title IX Coordinator. This requirement applies *regardless of how I came by the knowledge or suspicions and regardless of the wishes of the source of that information.*

According to the University's definition, "sexual discrimination" also encompasses both sexual harassment and sexual violence.

As both an educator and a compassionate person, this policy puts me in an awkward position. I care deeply about my students' well-being, and I want my students to be able to seek my advice about matters of importance to them. I am not always in a position to be of direct assistance with such matters, but I will always do everything within my power to make students aware of and/or put students in contact with resources that are so positioned. However, I generally try to do so with the permission and cooperation of the student requiring assistance.

This policy deprives me (and my students) of that discretion and dictates which resources I must notify, without regard to whether I believe them to be appropriate under the circumstances.

As such, the only recourse I see is proactively educating students about this policy and my responsibilities under it. Therefore, it is vitally important for you to understand that **anything you say, write, or otherwise communicate to me (either directly or indirectly) that discloses, or even suggests, that any form of sexual discrimination is taking place, has taken place, or may take place (on campus or off) will need to be reported, even if you ask me beforehand or afterwards not to do so.** Having brought this fact to your attention in this course syllabus, **I will hereafter assume that you are aware of the ramifications of your actions if you choose to disclose such information to me in any form and therefore that you are implicitly authorizing me (through choosing to make that disclosure) to report the information to the University Title IX coordinator, as per the University policies governing my actions.**

For your own protection and that of others, **it is vitally important to report situations in which someone is being, has been, or may be harmed to the appropriate authorities as quickly as**

**possible.** As such, by offering this explanation of my mandatory reporting responsibilities **I do not mean in any way to discourage you from reporting any instances of sexual discrimination (including sexual harrassment or sexual violence).** I simply wish to make you aware of the implications of sharing such information with me. With that awareness, **you are welcome to discuss anything you wish with me.** However, if you would prefer to maintain more control over the discussion, I would encourage you to consider reporting any information of concern to one of the following resources, none of which are covered by the same mandatory reporting policies that apply to me:

- ReportIt! (anonymous reports are accepted)  
<http://reportit.unh.edu>
- Sexual Harrassment and Rape Prevention Program (SHARPP)  
<http://www.unh.edu/sharpp/>  
603-862-3494/1-800-735-2964 (TTY)
- UNH Health Services  
<http://www.unh.edu/health-services/>  
603-862-2856/7-1-1 (TTY)
- UNH Counseling Center  
<http://www.unh.edu/counseling-center/>  
603-862-2090
- UNH Chaplains' Association  
<http://www.unh.edu/student-life/unh-chaplains-association>  
(various phone numbers, see web site)

