CSE/INFO 100
Fluency with Information Technology
Autumn 2007

Syllabus

This course is intended for first- and second-year undergraduates without technical backgrounds.

Prerequisites

No previous experience with computers is required for this course. HOWEVER... be prepared for a steep learning curve if you truly have NO experience. Students with no experience should join the Computer Basics Labs held on the first two evenings of the term. (See the Announcements section below and the course announcements.)

This class covers a wide range of material and will require a considerable amount of time. Students not able to spend up to 10 hours a week outside of class should consider taking FIT100 during another term when they have more time.

Course Description

The official course description states that the class:

o Introduces skills, concepts, and capabilities necessary to effectively use information technology.
o Includes logical reasoning, managing complexity, operation of computers and networks, and contemporary applications such as effective Web searching and database manipulation, ethical aspects, and social impacts of information technology.

The Fluency Vision

This course is an introductory class that implements the recommendations of the National Research Council's study Being Fluent With Information Technology [National Academy Press, 1999]. The report describes the knowledge and experience a person should possess to be fluent in information technology, where fluency is a more ambitious goal than computer literacy.
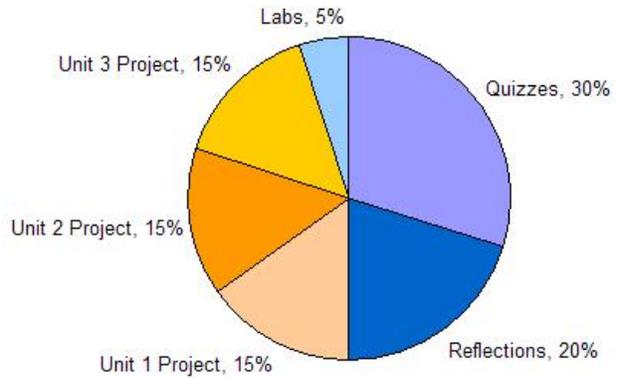
For more information on the goals of this class and the report, read the vision statement at the course Web site:

Grading Policy

Grades will follow the [University of Washington Undergraduate Grading policy](). More information is available on the [Grading page]() of the course Web site.

The breakdown of your grade for this class is as follows:

45%   3 Projects (15% each)
30%   10 pop quizzes (3% each)
 5%   Lab assignments
20%   20 pop written reflections (0.5% each)

Note: You are not in competition with other students in the class for your grade. Do the work and you'll do fine.

Coursework, Workload, and Late/Missed Policy

Attendance is expected for all lectures and labs. Once a week at random labs, online quizzes will be given on previously-assigned readings. Twice a week at random lectures, reflection papers of 2-3 paragraphs will be written on that day's readings and other selected topics.

Coursework entails readings, computer labs, assignments, projects, weekly quizzes, twice weekly written reflections, and class participation in lectures and labs.

Attendance at all lectures (**M,W,F 10:30–11:20 AM, MLR 301**) and the assigned computer labs is expected. For each hour of class time you should plan for one 1.5 to 3 hours of work outside of class; so, roughly, 8 to 15 hours of outside work each week. Remember that this course is a five-credit class.

In life, sometimes bad things happen. They might take the form of a medical or family emergency. If something like this should happen to you during the quarter and it causes you to miss a quiz or writing assignment, contact the instructor immediately. Early, late, or make-up quizzes will only be administered in extreme circumstances. Be advised that in order to make up any missed quiz or writing assignment, you must provide a valid reason: documented emergency, illness or standard UW exception (military service, student athletes, etc). A note from your mother will not be acceptable.

Other than the situations described above, quizzes and writing assignments will not be rescheduled for any reason.

Projects should always be turned in on time through the online Catalyst tools with one exception:
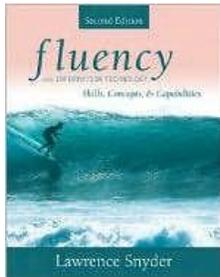
The 1-1-1-1 Rule

You may turn in one part of one project one day late one time during the quarter without penalty. No other late projects will be accepted. Always turn in what you have completed, partial or otherwise. Some credit is better than no credit!

Name Badges

For this course, you are required to wear your Husky ID to every lecture and lab. In class, we will hand out ID holders that pin to your clothes. You may prefer to wear your ID on a lanyard around your neck or in another type of holder. That is fine as long as your name and picture are visible at all times. Seeing your Husky ID will help us to quickly learn your names. We prefer getting to know you over having to ask to see a picture ID every time you turn in a reflection paper or take a quiz.

Required Textbooks
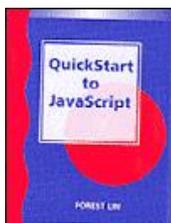
Two textbooks are required:

Title: *Fluency with Information Technology: Skills, Concepts & Capabilities,* Second Ed.
Author: Snyder, L.
Publisher: Addison-Wesley, 2006
ISBN: 0-321-35782-5
Useful files for this book are available at: http://www.aw.com/snyder/

Title: *QuickStart to Javascript*, First Edition
Author: Forest Lin
Publisher: Addison Wesley, 2000
ISBN: 1576760189

Throughout the course, additional online materials will be identified. These materials will assist with learning HTML, databases, and JavaScript. In particular, the tutorials at W3 Schools are extremely helpful.

Computer Labs

Each computer lab section meets two times each week. Attendance is required. The labs are integrated with the lecture material. In the labs, you will learn the hands-on computer skills that you will need to complete the projects.

In addition, the pop quizzes will take place in the labs. Important information about the projects will be discussed and certain labs graded for points. The labs and the assignments that are part of them will be graded; they account for 15% of your final grade.

If you miss a lab, do not expect the TA or Instructor to provide you with an equivalent lab session during their consulting hours. Be prepared to go through the lab on your own and then, if you have specific questions not answered by your classmates, ask your TA.

Course Communications

All communication is to be respectful—in lectures, labs, office hours, emails, the class listserv, and the bulletin board—whether in person or electronic. Quick links to many communication options are available on the course Web site's righthand navigation bar under Contacts, as shown in the image at right.

Contacts
Instructors and TA's
Anonymous comments
Class Bulletin Board
Class listserv
ListServ Archives

Announcements

Announcements appear in two places:

- o [Course home page](#)
- o [Course listServ](#)

Every student must have a UW email account to send messages to the instructors and other students. All enrolled students are automatically a part of the class listServ. All important announcements will be sent to this list. The listServ may provide the only official class notice you will receive in some cases.

Be sure to read these postings regularly. You will be responsible for the content. For instance, if you do not have access to email on weekends, you must check the [course home page](#) on Monday mornings before lecture.

NOTE: All listServ announcements are sent to your UW email address. If you forward your UW email to another email address, make sure that email address is up to date.

If you missed an announcement or you want to see an earlier announcement, check the course listServ archives or use the drop-down menu on the course home page to view this week's, this month's, or this quarter's announcements.

Anonymous Email

The "Anonymous Comments" link will allow you to send anonymous email to the Instructors, TA's, or both if you wish.

Anonymous means you can send an email without the Instructors or TAs knowing who you are. But, it also means that we can't answer you directly if you ask a question using anonymous email! NOTE: Don't send an anonymous email if you expect a reply!

Help by Email

Click the "Instructors and TAs" link under Contacts to open a U-Mail Web form. Select the people you would like to contact. During the week, Monday through Friday, you will hear back from us within 24 hours. Please do NOT expect an immediate reply on the weekends.

We strongly encourage you to request help by email. Include a full description of the problem you are having, in order for us to help you.

Bulletin Board

The "Class Bulletin Board" link under Contacts allows every student to post a message or discussion about a particular project, the lecture or the labs.

Post questions that fellow students may be able to answer. The Bulletin Board will be the main communication tool between the Instructor, the TAs and all students. Check often for new postings, they may be very helpful. The bulletin board is different from the class listserv, where the information comes directly to your email account. You must check the Bulletin Board to see what has been posted.

Getting Unstuck

It is the most common fact in IT that users of a particular technology WILL get stuck. It happens to everyone -- nobody is immune. However, one of the most useful skills you may learn from this course is "how to get unstuck."

In the real world, successful people who find themselves stuck do several things such as:

- o   systematically play around with the technology,

- ask a co-worker or friend for help, or
- ask an expert for help.

Hopefully you'll explore all three means to get unstuck in this course. This process is called "debugging" and we'll talk more about this sort of strategy during the course. Here are some suggestions:

- *Step back.* When you first "get stuck," take a deep breath! Step back for a moment. Look carefully at the work you have just done. Try changing one thing and see what effect it has. Check the class bulletin board to see if others have encountered (and solved) a similar problem.
- *Ask a classmate.* Get to know two or three students in the course; exchange email addresses; ask each other for help when you get stuck. Try to share ideas about how to figure out the problem rather than telling your classmate the answer. You'll learn as much by helping others find their mistakes as you will by finding your own.
- *Consult with the Instructor and TAs.*
    - *Office hours.* Each week the instructor and TAs hold regular office hours. Come prepared with a specific question in order to make the most of your time with them. Any student may attend anyone's office hours.
    - *Email help.* Email your question with a full explanation of the problem, not just a vague request for help or the answer!

Appropriate Cooperation and Collaboration

It is valuable to work with a friend or classmate when learning a new application or working out a problem. However, the work that you perform in this class for a grade must be your own work unless "working in groups" is explicitly allowed. Projects in this course are meant to be done by the individual.

You must follow these rules when you are working with someone else on homework that must be your own:

- After working together no collaborators should keep any records or documents of the session ... only memories.
- Wait at least 1/2 hour before starting your own work, and in that time engage in some mindless activity ... such as playing a video game or watching a sitcom.
- It is recommended that you note on your submitted work "I talked to _____ while working on this assignment."

Copying files or other documents from someone else, and claiming they are yours is plagiarism and anyone caught will be sent to the University Conduct Committee. You are responsible for understanding the University rules concerning plagiarism.

If you have questions regarding the class policy, consult the Instructor.

Disability Accommodation

More information is available on the [Accommodations page](#). If you wish to request academic accommodations due to a disability, please contact

> Disabled Student Services
> 448 Schmitz
> 543-8925 (V/TTY)

If you have a letter from Disabled Student Services indicating you have a disability that requires academic accommodations, please present the letter to your instructor so that we can discuss accommodations that you might need for the class.

Success in this Course

The best predictor of success in this course is good study habits. What does that mean? It means that students who come to class prepared, who read the text, who attend the lab sections and diligently work on the assignments, and who turn in the projects on time do well. Keeping up with the work is the secret. It doesn't take a genius to do well in this class. Anyone can be successful! Good luck!

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This calendar describes the course throughout the term. (Not all links are "live" yet, but they will be before they're needed.) Here you will find lecture slides (Lecture column), and Lab materials (Section column).

School Holidays

We have three official UW holidays during this quarter:

- November 12 is Veterans Day. Important: Students with Monday labs must attend any lab on Tuesday, November 13, to make up the missed work.
- November 22 and 23 are the Thanksgiving Holidays. No makeup is required.

In addition, for our course only, all lecture and labs are canceled on November 21, the Wednesday before Thanksgiving. No makeup is required.

Date	Day	Lecture Topic	Due Dates for Readings	Lab Topic	Homework	Summary
Sept 26	Wed	Introduction Print Syllabus		UW Network Resources (Lab 01)	Assigned: HW 1	Become familiar with the course Web site and UW computing facilities
Sept 27	Thu			UW Network Resources (Lab 01)		
Sept 28	Fri	Terms: Le Mot Juste Print	**Chapter 1**		**DUE: HW 1 at Beginning of lecture**	Why are there strange words in computing, and why we need to learn them!
Oct 1	Mon	Digerati Print	**Chapter 2**	Directories (Lab 02)	Assigned: HW2	Explore two common desktop operating systems
Oct 2	Tue			Directories (Lab 02)		
Oct 3	Wed	Networking	**Chapter 3**	Remote Login (Lab 03)		Routing packets and communicating with postcards
Oct 4	Thu			Remote Login (Lab 03)		
Oct 5	Fri	HTML Print [Image]	**Chapter 4**		**DUE: HW 2 at Beginning of lecture**	Marking up content for the World Wide Web
Oct 8	Mon	Net Truth Print	**Chapters 5 & 6**	HTML (Lab 04)	Assigned: Project 1	Why not believe stuff published online like this calendar?
Oct 9	Tue			HTML (Lab 04)		
Oct 10	Wed	Debugging	**Chapter 7**	Image Manipulation (Lab 05)		Before calling Tech Support, try this.
Oct 11	Thu			Image Manipulation (Lab 05)		
Oct 12	Fri	Digital Representation Unit Review	**Chapter 8**			A world of 1's and 0's

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Oct 15	Mon	More Digital Representation Print	**Chapter 11**	GUIs (Lab 06)	**Due by 10pm: Project 1A**	Light, Sound, and Magic in a Virtual World
Oct 16	Tue			GUIs (Lab 06)		
Oct 17	Wed	Programming Basics and Algorithms Print	**Chapters 9 &10**	Algorithms (Lab 07)		Thinking procedurally is a familiar idea
Oct 18	Thu			Algorithms (Lab 07)		
Oct 19	Fri	Javascript Programming In Class Example	**Chapters 18 & 19**		**Due by 10pm: Project 1B**	Adding interaction to Web pages
Oct 22	Mon	Functions In Class Example	**Chapter 20**	Programming (Lab 08)		Packaging computations for future use
Oct 23	Tue			Programming (Lab 08)		
Oct 24	Wed	Control Flow In Class Example	**Chapter 21**	Programming Control Flow (Lab 08)	Assigned: Project 2A	Whither thou goest....
Oct 25	Thu			Programming Control Flow (Lab 08)		
Oct 26	Fri	Arrays In Class Example 1 In Class Example 2 In Class Example 3 In Class Example 4	**Chapter 22**			Making lists and processing the lists
Oct 29	Mon	Programming Review		Project Work		Review
Oct 30	Tue			Project Work		
Oct 31	Wed	Document Object Model In Class Example 1 In Class Example 2 In Class Example 3 Handout		Project Work	**Due by 10pm: Project 2A**	Looking at Web pages as Objects
Nov 1	Thu			Project Work		
Nov 2	Fri	Javascript Context			Assigned: Project 2B	Scripting makes it happen on the Web
Nov 5	Mon	Animation Print Project2A Review	**Chapter 22**	Time Zones (Lab 09)		Livening up Web pages
Nov 6	Tue			Time Zones (Lab 09)		
Nov 7	Wed	Algorithmic Thinking Summary Print	**Chapters 18-22**	Project Work		Combining all the big ideas
Nov 8	Thu			Project Work		
Nov 9	Fri	Computer Basics Print	**Chapter 9**			Under the "hood" of a computer

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Nov 12	**Mon**	**No Class: Veteran's Day**		**Pick any Tuesday lab to join**		
Nov 13	Tue			Project Work		
Nov 14	Wed	Privacy Print	**Chapter 17 (first half)**	Project Work		Keeping our private information private
Nov 15	Thu			Project Work		
Nov 16	Fri	Spreadsheets Print	**Chapter 13**		**Due by 10pm: Project 2B**	Spreadsheets are an easy way to compute
Nov 19	Mon	Database Basics Print	**Chapter 14**	Spreadsheets (Lab 10)	Assigned: Project 3A	Databases—better than spreadsheets?
Nov 20	Tue			Spreadsheets (Lab 10)		
Nov 21	**Wed**	**No Lecture: Happy Thanksgiving**		**No Lab: Nice TA's :-)**		
Nov 22	**Thu**			**No Lab: Happy Thanksgiving**		
Nov 23	**Fri**	**No Lecture: Happy Thanksgiving**				
Nov 26	Mon	Queries Print	**Chapter 15**	Access Intro (LS10)	Assigned: Project 3B	Asking questions (and getting answers) from databases
Nov 27	Tue			Access Intro (LS10)		
Nov 28	Wed	Designing a Database		MS Access Reports & Forms (Lab 12)	**Due by 10pm: Project 3A**	This "chalk talk" has no notes
Nov 29	Thu			MS Access Reports & Forms (Lab 12)		
Nov 30	Fri	Computers in Social Settings Print	**Chapter 12**			Making computing more pleasant
Dec 3	Mon	Security Print	**Chapter 17 (last half)**	Project Work		Be careful! It's a jungle out there.
Dec 4	Tue			Project Work		
Dec 5	Wed	Do computers think? Print	**Chapter 23**	Security (Lab 13)		Do they?
Dec 6	Thu			Security (Lab 13)		
Dec 7	Fri	Wrap Up Print	**Chapter 24**			What have we learned this term?
Dec 10	**Mon**				**Due by 10pm: Project 3B**	