## CSE/INFO 100 Fluency with Information Technology Winter 2008

# 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 attend the Computer Basics Labs held on the first Wednesday and Friday of the term at 10:00 AM in MGH 430.

This class covers a wide range of material and will require a considerable amount of time. Students unable 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:

- Introduces skills, concepts, and capabilities necessary to effectively use information technology.
- 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 <u>vision statement</u> at the course Web site:

### **Grading Policy**

Grades will follow the <u>University of Washington</u> <u>Undergraduate Grading policy</u>. More information is available on the <u>Grading page</u> of the course Web site.

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

- 45% 3 Projects (150 points each)
- 27% 9 pop quizzes (30 points each)
- 24% 12 Lab assignments (20 points each)
- 4% 4 pop reflection papers (10 points 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, unannounced online quizzes will be given in the lab on previously-assigned readings. Four times during the quarter, unannounced reflection papers of 3-4 paragraphs will be written in the lecture hall on topics from that week's readings.

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

Attendance at all lectures (**M,W,F 12:30 AM – 1:20 PM, MGH 389**) 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 other 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 other 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!

### **Picture Identification**

When pop quizzes are given in the labs, you must be prepared to show your Husky ID or other photo ID such as driver's license.

### **Required Textbooks**



Two textbooks are required:

Title: *Fluency with Information Technology: Skills, Concepts & Capabilities,* Third Ed. Author: Snyder, L. Publisher: Addison-Wesley, 2007 ISBN: 0-321-51239-1 Useful files for this book are available at: <u>http://www.aw.com/snyder/</u>

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 <u>Course home page</u>
- o <u>Course listServ</u>

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 <u>course home page</u> 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 <u>listServ archives</u> or use the drop-down menu on the <u>course home page</u> 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, teaching assistants (TAs), 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,

- o 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 <u>these rules</u> 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 <u>University rules concerning plagiarism</u>.

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

### **Disability Accommodation**

More information is available on the <u>Accommodations page</u>. 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!

This calendar describes FIT100 throughout the term. (Links will become "live" when they're needed.) Here you will find lecture slides (Lecture column), and Lab materials (Section column).

#### **School Holidays**

We have two official UW holidays during this quarter:

- Monday, January 2: Martin Luther King Day
  Monday, February 18: President's Day

Date	Day	Lecture Topic	Due Dates for Readings	Lab Topic	Homework	Summary		
Jan 7	Mon	Introduction Print				Become familiar with the FIT web site and UW computing facilities.		
Jan 8	Tue			UW Network Resources (L1)				
Jan 9	Wed	Le Mot Juste Print	Chapter 1	UW Network Resources (L1)	HW 1 Assigned	Why are there strange words in computing, and why to learn them.		
Jan 10	Thu	Digerati Print	Chapter 2	Directories (L2)		Explore two common desktop operating systems.		
Jan 11	Fri			Directories (L2)	HW 1 Due beginning of class			
Jan 14	Mon	Networking Print Quiz 1	Chapter 3		HW 2 Assigned	Routing packets and communicating with postcards.		
Jan 15	Tue			Editing your web site (L3)				
Jan 16	Wed	HTML Print [image]	Chapter 4	Editing your web site (L3)				
Jan 17	Thu			HTML Practice(L4)				
Jan 18	Fri	Net Truth Print	Chapter 5	HTML Practice(L4)	Project 1 assigned HW 2 Due by SPM	Why not to believe stuff published online. Like this calendar? Turn in your homework online before SPM.		
Jan 21	Mon	M L King Holiday						
Jan 22	Tue			Image Manip (L5) [snapshots]				
Jan 23	Wed	Debugging Print	Chapter 7	Image Manip (L5) [snapshots]		Before calling Tech Support, try this.		
Jan 24	Thu			Project Work				
Jan 25	Fri	Digital Representation Print	Chapter 8	Project Work	Project 1A Turn In by 17:00	A world of 1's and 0's. Turn in your project online before 5PM		

Date	Day	Lecture Topic	Due Dates for Readings	Lab Topic	Homework	Summary		
Jan 28	Mon	More Digital Representation Print	Chapter 11			Light, Sound and Magic in a Virtual World		
Jan 29	Tue			GUIs (L6)				
Jan 30	Wed			GUIs (L6)		In class; bring photo ID		
Jan 31	Thu			Project Work				
Feb 1	Fri	Algorithms Print	Chapter 10	Project Work	Project 1B Turn by 23:00	Thinking procedurally is a familiar idea Turn in your project online before 11PM		
Feb 4	Mon	Expressing Algorithms Print	Chapter 18			Variables, Values and Expressions		
Feb 5	Tue			Algorithms (L7)				
Feb 6	Wed	Iteration Print	Chapter 21	Algorithms (L7)	Project 2 Assigned	Computers are effective when they repeat themselves.		
Feb 7	Thu			Algorithms (L8)				
Feb 8	Fri	Functions Print	Chapter 20	Algorithms (L8)		Packaging computations for future use.		
Feb 11	Mon	Animation Print	Chapter 22			Livening up Web pages.		
Feb 12	Tue			Project Work				
Feb 13	Wed	Algorithmic Thinking Summary Print	Chapters 18-22	Project Work		Combining all of the big ideas.		
Feb 14	Thu			Project Work				
Feb 15	Fri	Computer Basics Print	Chapter 9	Project Work	Project 2A Turn In by 23:00	How a computer works inside. Turn in your project online by 11PM		
Feb 18	Mon	President's Day Holiday						
Feb 19	Tue	Privacy Print	Chapter 17, First half only	Project Work				
Feb 20	Wed	Spreadsheets Print	Chapter 13	Project Work		Spreadsheets are an easy way to compute		
Feb 21	Thu			Spreadsheets (L09)				
Feb 22	Fri	Database Basics Print	Chapter 14	Spreadsheets (L09)	Project 28 Turn In by 23:00	DBs may be better than spreadsheets Turn in your project online by 11PM		

Date	Day	Lecture Topic	Due Dates for Readings	Lab Topic	Homework	Summary	
Feb 25	Mon						
Feb 26	Tue	Database Video		Spreadsheets (L10)			
Feb 27	Wed			Spreadsheets (L10)			
Feb 28	Thu	Database Video		Access Intro (L11)			
Feb 29	Fri			Access Intro (L11)	Project 3A Assigned		
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Mar 3	Mon	Queries Print	Chapter 15			Asking questions to databases	
Mar 4	Tue			Access Forms (L12)			
Mar 5	Wed	Designing A Database		Access Forms (L12)		This "chalk talk" has no notes.	
Mar 6	Thu			Project Work			
Mar 7	Fri	Computers in Social Settings Print	Chapter 12	Project Work	Project 3A Turn In by 23:00	Make computing more pleasant Turn in your project online by 11PM	
Mar 10	Mon	Security Print	Chapter 17 Last Half			Be careful! It's a jungle out there.	
Mar 11	Tue			Security (L11)			
Mar 12	Wed	Do computers think? Print	Chapter 23	Security (L11)		Do they?	
Mar 13	Thu			Project Work			
Mar 14	Fri	Wrap Up Print	Chapter 24	Project Work		What have we learned this term?	
Mar 17	Mon	Survivor's Party			Project 3B Turn In by 23:00	Turn in your project online by 11PM	
Mar 18	Tue	Survivor's Party					
Mar 19	Wed	Survivor's Party					