

I101 Introduction to Informatics

Indiana University School of Informatics - IUPUI

Fall 2010

Section Number: 2482
Classroom: IT 357
Meeting Time: Mon. 6:00-8:40 pm
Credit Hours: 4 CR

Instructor: Jennifer Stewart
Office Address: IT 585
Office Hours: (IT 585) Thurs. 6:30-8:30 pm,
(IT 255) Fri. 2:00-4:00 pm
and via appointment
Email Address: via OnCourse

Instructor: William Ryan
Office Address: IT 580
Office Hours: (IT 580) Tues. 3:00-4:00 pm, Tues. 5:30-6:30 pm,
Weds. 1:00-2:00 pm,
(IT 255) Fri. 1:00-2:00 pm
and via appointment
Email Address: via OnCourse

Mission Statement

The Mission of IUPUI is to provide for its constituents excellence in

- Teaching and Learning
- Research, Scholarship, and Creative Activity
- Civic Engagement

With each of these core activities characterized by

- Collaboration within and across disciplines and with the community
- A commitment to ensuring diversity, and
- Pursuit of best practices

IUPUI's mission is derived from and aligned with the principal components – Communities of Learning, Responsibilities of Excellence, Accountability and Best Practices – of Indiana University's Strategic Directions Charter.

Statement of Values

IUPUI values the commitment of students to learning; of faculty to the highest standards of teaching, scholarship, and service; and of staff to the highest standards of service. IUPUI recognizes students as partners in learning. IUPUI values the opportunities afforded by its location in Indiana's capital city and is committed to serving the needs of its community. Thus, IUPUI students, faculty, and staff are involved in the community; both to provide educational programs and patient care and to apply learning to community needs through service. As a leader in fostering collaborative relationships, IUPUI values collegiality, cooperation, creativity, innovation, and entrepreneurship as well as honesty, integrity, and support for open inquiry and dissemination of findings. IUPUI is committed to the personal and professional development of its students, faculty, and staff and to continuous improvement of its programs and services.

Required Text:

Title: Fluency with Information Technology: Skills, Concepts, and Capabilities (Fourth Edition)
Author: Lawrence Snyder
Year: 2011
Publisher: Prentice Hall
ISBN: 0-1360-9182-2

Equipment Needed:

If you are a declared Informatics major, please visit <http://informatics.iupui.edu/technology/laptop> for information on the Laptop Initiative for Informatics majors.

Software needed: web browser that has Flash Player and QuickTime Player installed, text editor, Microsoft Word, Microsoft PowerPoint, Microsoft Access, Adobe Dreamweaver, Adobe Photoshop, Adobe Sound Booth, Alice 2.2, and IBM Many Eyes (<http://manyeyes.alphaworks.ibm.com/manyeyes/>). You will also need to have web access to <http://www.wordpress.com>. Also, you will need FTP/SSH clients: AnyClient (PC-Only, Applet for Mac) and PuTTY (PC-Only) or Cyberduck and Terminal (pre-installed on Macs).

All software except for Alice, Flash Player, and QuickTime, can be downloaded to your laptop from IUWare (<http://iuware.iu.edu>). Other software may be downloaded from:

- Alice 2.2 http://www.alice.org/index.php?page=downloads/download_alice2.2
- Flash Player <http://get.adobe.com/flashplayer/>
- Quicktime <http://www.apple.com/quicktime/download/>

Course Description:

This course focuses on:

Problem solving with information technology; introductions to information representation, relational databases, system design, propositional logic, cutting edge technologies: CPU, operating systems, networks; laboratory emphasizing information technology including web page design, word processing, databases, using tools available on campus.

Course Objectives:

By the end of this course, you will be able to:

- Develop a common vocabulary for computing and computing terms and protocols.
- Decipher computer specification sheets and choose the best option for a given task.

- Differentiate between various computer network components and systems and gain experiencing working with different web applications.
- Engage with both technical and social dimensions of technology.
- Identify your role in Informatics by narrowing down areas of specialization.
- Be conversant in the limitations of computing, while being able to identify trends in recent computing for future needs.
- Demonstrate problem solving abilities through lab exercises and the final project and critical thinking through class discussions and blog assignments.

Principles of Undergraduate Learning (PUL):

This course follows the Principles of Undergraduate Learning
<http://clas.iupui.edu/undergraduatelearning.html>

Specifically, this course enhances the following principles:

- Critical thinking
- Writing skills
- Oral presentation
- Application of knowledge
- Intellectual depth, breadth, and adaptiveness
- Understanding of society and culture
- Values and ethics

Expectations/Guidelines/Policies:

Attendance Policy

Attendance is required. The University regulations state: “Students are expected to be present for every meeting of the classes in which they are enrolled.” IUPUI faculty are required to submit to the office of the Registrar a record of student attendance through the semester, on which they will take action if the record conveys a trend of absenteeism. As a result, attendance will be taken in all classes.

- If you do not sign your name while in class you will be marked absent.
- Signing the attendance sheet for another student is absolutely prohibited. Any student found doing so will be in violation of university policies on ethics and/or conduct.

Important: Missing classes will affect your grade

You are allowed two unexcused absences before your grade will be affected. Missing class means you do not show for the entire evening of class. The grade reduction policy works in this way.

- On the third missed class your final grade will drop 5 percent (regardless of the reason).
- On the fourth missed class your final grade will drop 10 percent (regardless of the reason).
- On the fifth missed class your final grade will drop 15 percent (regardless of the reason).
- On the sixth missed class a grade of “F” will be issued for the course or the student will have the option of dropping the course.

Facebook/Web/Computer/Cell Phone Use

For the entire class period, your attention is expected to be on lecture or classwork. Although we

are aware that you are quite adept at multitasking, we ask that you focus on one thing during class. We want to eliminate distractions during class.

Incomplete Grade

A grade of I (incomplete) will be assigned only under exceptional circumstances, such as illness, that prevent students from finishing all work required in this course. A grade of I will be awarded only if a minimum of 75% of the work has been completed and the work is of passing quality. Students will have one semester to complete the coursework.

Withdrawal Policy

Students may officially withdraw from classes without penalty during the first half of a semester or session if they secure the approval of their advisor; a grade of W (Withdrawal) is recorded on the final grade report.

Students may withdraw from classes during the third quarter of a semester or session if they secure the approval of their advisor and the instructor of the course; the instructor may assign a grade of W or F. The grade so assigned is recorded on the final grade report.

Students may withdraw from classes during the last quarter of a semester or session if they secure the approval of their advisor, the instructor of the course, and the dean of their school; the instructor may assign a grade of W or F. The grade so assigned is recorded on the final grade report. Students will be allowed to withdraw from class during the last quarter of the semester only under extenuating circumstances. A written justification from a doctor, member of the clergy, advisor, etc., must be presented.

Late Assignments

Late assignments will not be accepted unless accompanied by a doctor's note or other appropriate documentation. Assignments are due at the date specified on the calendar below, unless altered by the instructors. You will be allowed to drop your lowest class assignment and quiz grade.

Turning In Assignments

We will be completing assignments covering a wide range of topics, covering an equally wide range of technology. There will not be a uniform way for turning in assignments. At times, we will submit assignments via Oncourse assignments tab. The method for turning in assignments will be clearly laid out on the class calendar for each week. It is your responsibility to follow the directions for submitting your assignment properly. Failure to do so will result in a reduction of points for the assignment. ***It is also your responsibility to keep a back up of your assignments until the end of the semester.***

Oncourse

We will utilize Oncourse as the main course management system for this class. The assignments, resources, library resources, grade book, test & survey tool, and other fantastic features will all be used throughout the course. If you are unfamiliar with Oncourse, please visit <http://kb.iu.edu/data/agkx.html?cust=73201> to get more help.

Academic Integrity and Plagiarism

You are expected to submit your *own* work for quizzes, blog entries, projects, and exams; however, finding other sources that support claims that you are making are perfectly reasonable activities as long as you properly cite the source that you are using. If you do bring in other

sources, you are expected to add your own insights in addition to the text and diagrams that you incorporate into your work.

You are encouraged to consult with your classmates as you work on the assignments (collaborations and cheating on quizzes and exams, however, will result in failure for all parties involved), but you are expected to turn in your own original work for each assignment. Using another student's work on a project or assignment, cheating on a test, or any other form of dishonesty or plagiarism will result in a grade of zero on that assignment and possibly an "F" in the course, and all parties involved will be referred to the Dean of Students. If you would like to review your rights and responsibilities as set out by the university, please visit <http://www.iupui.edu/code/>.

Bringing Others to Class

The university policy on the attendance of children is:

"Children are not permitted to attend class with parents, guardians, or childcare providers. This conduct has the effect of unreasonably interfering with an individual's work or academic performance creating an offensive learning environment."

If you want to bring a friend or prospective student who is interested in the class, please contact the instructor a week before the class the student wishes to attend.

Assignments

Assessing Your Retention of Class Readings

Each student should not only read but arrive at a competent understanding of the content of the readings so you can be engaged in a group discussion during class time. Weekly reading is an important part of this class. ***Weekly quizzes will be posted to assess your reading retention.***

Quizzes on Readings

Quizzes will be posted to OnCourse based on the readings each week. You will be quizzed over the material you read and watch in this course to determine basic mastery and participation in the subject material. You will be graded on each quiz using the grading scale outlined in this syllabus.

Blogs

Each student will create an account on <http://www.wordpress.com/> during lab time on the first day of class (Monday, August 23). Blogs will be graded as:

- **4 points**, Excellent work, showing a great deal of critical thought about the topic.
- **3 points**, Good work, responded to the blog assignment, but did not critically engage with the topic.
- **2 points**, Sloppy work, did the assignment, but did not really address the core of the problem.
- **1 point**, Incomplete, did not address the assignment at all or work is unsatisfactory.

- **0 points**, Not done at all

Doing additional blog posts, commenting on other students blog posts, and posting to the blog on class relevant topics can all significantly aid your participation grade.

Labs

Labs are written to reinforce topics in lecture and also to give you an opportunity to work with some of the technologies will be talking about in class. When you miss class on the day of a lab, you are responsible for completing the lab assignment by the assigned due date. Lab slides will be available on the day of class through OnCourse and instructors will meet with you if you have questions, but we will not teach the lab all over again to you.

Final Project

The final project uses the skills developed throughout the class. This project will be done without constant supervision by the instructors, although the instructors will supervise progress.

Final deliverables:

- Final presentation.
- Group member evaluations
- Submission packet. The packet should leave no doubt about how your project went, what you did, how you did it, and what the final outcomes were.

Comprehensive detail will be provided on Week 7 (October 4). The final project presentations will be during class time on the final day of class on Week 16 (December 6) and all final project materials will be due at that time.

Final project grade will be based **80%** on the quality of your work and **20%** on your average group evaluation scores.

Midterm and Final Exam

There will be midterm and final exams over material presented in class and in the textbook. It will be administered entirely in Oncourse. You will have a 48-hour period in which to start the exam from when it is released to you. You will need to block off 90 minutes to complete the exam. ***You will only be able to log in one time to complete the exam.***

Test questions will be randomized from a pool of questions. ***Each exam will be different.***

If you have the proper documentation from Adaptive Services, modifications to the exams will be made for you. Notify us at the beginning of the semester, ***not the week of the exam.***

Attendance and Participation

To earn full participation points, you must regularly attend to class (with the exception of up to two excused absences). Other ways you can maximize your potential participation points are:

- Physically attending office hours.
- Thoughtful posts and comments to the blog website beyond what is required by the course.
- General preparedness for the course.
- Participation in class discussions.
- Responding to instructor requests for information in a timely manner.

Course Grading Breakdown

- Attendance/Participation 5%
- Blog Assignments 15 %
- Quizzes 10 %
- Lab Work 30 %
- Group Final Project 20 %
- Midterm Examination 10 %
- Final Examination 10 %

Basic Grading Scale

A+	(97-100%)	=	Professional level work, showing highest level of achievement.
A	(93-96%)	=	Extraordinarily high achievement, quality of work; shows command of the subject matter.
A-	(90-92%)	=	Excellent and thorough knowledge of the subject matter.
B+	(87-89%)	=	Above average understanding of material and professional quality of work.
B	(83-86%)	=	Signifies mastery and fulfillment of all course requirements; Good, acceptable work.
B-	(80-82%)	=	Satisfactory quality of work.
C+	(77-79%)	=	Minimally acceptable performance and quality of work; partial mastery.
C	(73-76%)	=	Unacceptable work, does not demonstrate mastery.
C-	(70-72%)	=	Unacceptable work.
D+	(67-69%)	=	Unacceptable work.
D	(63-66%)	=	Unacceptable work.
D-	(60-62%)	=	Unacceptable work.
F	(< 60%)	=	Failure.

Class Calendar

This calendar is tentative only. It is subject to change before the first day of class. Thank you.

Week #	Dates	Lecture Topic	Lab Topic 1	Lab Topic 2	Assignment at Home	Final Project
1	8/23-8/24	What is informatics?	Setup University and Wordpress accounts	Introductory Video to Computing (TED Talk)	Blog Post #1 Quiz on Syllabus Read <i>first</i> Evans et al. excerpt on OnCourse Read <i>second</i> Snyder [CH 9 pp. 246-267] Bring in Computer Ad to class for week 2	
2	8/30-8/31	What is a computer?	Computer Architecture intro	Binary	Watch Volume 1 of Triumph of Nerds Complete Nerds Study Guide 1 Quiz on What is a Computer? Blog Post #2	
3	9/6 (Labor Day)-9/7	What can you do with Informatics? (Guest Lectures)			Read Snyder [CH3] Read Robson and Freeman [CH 1-2] on Safari Online Blog Post #3	
4	9/13-9/14	Networks and the Internet	FTP/Unix	Introduction to HTML	Quiz on Networks Read Synder [CH11] Read Robson and Freeman [CH 5] on Safari Online	
5	9/20-9/21	Digital vs. Analog	Photoshop Tutorial		Watch Colloquia Blog Post #4 Quiz on Multimedia Read Robson and Freeman [CH 8] on Safari Online Read Dibbell article	Announce Final Project
6	9/27-	Problem Solving:	HTML	HTML	Read Robson	

	9/28	Wicked vs. Tame	(Dreamweaver)			and Freeman [CH 11] on Safari Online Read Snyder [CH 10] Blog Post #5	
7	10/4- 10/5	Problem Solving: Strategies and Mistakes; Algorithms	CSS	Review		Review Study Guide	Project Teams Created, Ideas for Project Due
8	10/11- 10/12	Midterm Exam.				Watch Volume 2 of Triumph of Nerds Complete Nerds Study Guide 2	
9	10/18- 10/19	Fall Break.				Blog Post #6	
10	10/25- 10/26	Group Project Work: Idea Generation Session	CSS			Read Snyder [CH 16, pp.470- 473, pp. 481- 498] Read Beighley [CH 1, 2]	Project Group Proposal Due
11	11/1- 11/2	Data	SQL			Quiz on SQL and Databases Read Robson and Freeman [CH 14] on Safari Online Watch Volume 3 of Triumph of Nerds Complete Nerds Study Guide 3 Blog Post #8	
12	11/8- 11/9	Data Mining & Visualization	ER Diagram to Inputs to Database	Visualizations		Quiz on Web Forms Read Schnell and Rocha article on OnCourse	Topic Research Complete
13	11/15- 11/16	Data/ Information/ Knowledge	Alice and Programming Introduction	Alice: Variables, Methods, and Functions, Iteration and Conditionals		Quiz on Data/information /knowledge Blog Post #9	Identify Data Source, Plan for Collecting Data
14	11/22- 11/23	Final Project Work				Watch Revolution OS Complete Study Guide	Collected Data & Visualization Complete
15	11/29- 11/30	Critical Thinking & What a Computer Can/Can't Do	Logical Thinking: Truth Tables	Logical Thinking: Propositional Logic		Read Snyder [CH 23 pp. 687- 698]	
16	12/6-	Presentations	Review			Quiz on What a	Problem

	12/7			computer can/can't do	Resolution, Website, and Presentation Due
Final s	12/13- 12/14	Final Exam			
