Syllabus
Introduction to Web Science - COMP 475
2:30 – 3:45 TR, Science 200
Spring 2013

Instructor: Dr. Frank McCown
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Home Page: http://www.harding.edu/fmccown/classes/comp475-s13/ (Syllabus, useful links)
Office Hours: Science 208: 1 – 3 and 4 – 5 MWF, 2 – 3 and 4 – 5 TR or by appointment

Course Description

The Web has fundamentally changed how we learn, play, communicate, and work. Its influence has become so monumental that it has given birth to a new science: Web Science, or the science of decentralized information structures. Although Web Science is interdisciplinary by nature, this course will be focusing mainly on the computing aspects of the Web: how it works, how it is used, and how it can be analyzed. We will examine a number of topics including: web architecture, web characterization and analysis, web archiving, Web 2.0, social networks, collective intelligence, search engines, web mining, information diffusion on the web, and the Semantic Web. Prerequisite: COMP 245 and 250.

Optional textbooks:
> An Introduction to Search Engines and Web Navigation, 2nd edition by Mark Levene (2010)
> Networks, Crowds, and Markets: Reasoning About a Highly Connected World by Easley and Kleinberg (2010)
> > Online version: http://www.cs.cornell.edu/home/kleinber/networks-book/
> Programming Collective Intelligence: Building Smart Web 2.0 Applications by Toby Segaran (2007)
> > Online: http://mines.humanoriented.com/classes/2009/fall/csci568/collective_intelligence.pdf

Exams

Two regular exams will be given in class as well as a final comprehensive exam covering the entire course and, in more detail, the information presented since the 2nd exam. If you are unable to take an exam as scheduled due to a serious illness or some other emergency, it is **your responsibility** to call me and leave a message **before** the exam or as soon as you are physically able. If an official school function takes you out of class on an exam date, it is your responsibility to make arrangements *one week prior* to the exam as to when you will take the exam. Usually it will be given early, not late.

Programming Projects

There will be a variety of programming projects to be completed, usually in Python. You may work independently on all projects or in pairs (two people only) when permitted. Pair programming has been shown to have a number of benefits including increased personal satisfaction and fewer errors[1]. If you work in pairs, both of you must work together on a *single* computer, and both of you must write *approximately half* of the code. **No code can be written without the other partner present and watching.** Both of you should understand completely what is being written since you will have to complete your exams individually. When you submit a program that has been written in pairs, you must include both names in the documentation at the top of all submitted code.

Quizzes and Homework Assignments

Quizzes over reading assignments will be worth 10 points each. All quizzes will be taken on Canvas and must be completed *before* the class period on which the quiz is due. The quizzes are open book, but you may not discuss any quiz questions with anyone before or during the quiz. Even if you are absent from class, you are still required to take the quiz.

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[1] See *All I Really Need to Know about Pair Programming I Learned in Kindergarten* (2000) for more information on effectively using pair programming

Ten-point homework assignments will be averaged into the quiz scores. All homework assignment are to be completed *individually*.

Extra Credit

 The McChallenge: 1% will be added to your final grade for the completion of a program which will be made available to you later in the semester. The program will be due the Friday before final exams. You can skip the program and still get the 1% added to your final grade if you beat me in a game of basketball, tennis, racquetball, Halo, chess, Trivia Pursuit, or any other sport/game that I know how to play. If you lose, you still may complete the program to get your 1%. Only one challenge per semester, and all challenges must be made *before* the final week of class. Come by my office to schedule a time to play.

Giving blood at the Red Cross blood drives will earn you 0.2% added to your final grade each time you donate. Donate as many times as you'd like, and give me a signed note confirming your donation each time you donate.

Grades

Final grades will be computed as follows:

Exams:	30%
Projects:	30%
Quizzes and Assignments:	20%
Final Exam:	20%

Standard letter grades: A = 90-100%, B = 80-89% C = 70-79%, D = 60-69%, F = 0-59%

Late work: A maximum of 10% will be taken off *each day* (not each class period) a program or assignment is late, up to 50%. Every day is counted, including weekends.   Nothing late more than 1 week will be accepted.

Expectations

1. Notes (in the form of PowerPoint presentations) for each day will be made available to you on Easel. They are usually available the evening before the next day of class. If you want to print them out, please do so *before* class, *not during class* so you don't disrupt others. Please print them out with at least 6 slides per page to save paper.

2. To be successful in this course, be prepared to spend at least **two hours outside of class** for every hour in class studying, reading, completing quizzes and homework, working on projects, and preparing for exams.

3. It is important that you **check your e-mail regularly (everyday)** because I occasionally give hints or corrections to homework assignments via e-mail. This is also the best way to communicate with the class outside of the classroom.

4. I expect every one of you to hold to the **highest standard** of personal conduct and **integrity**. Cheating in all its forms is inconsistent with Christian faith and practice and will result in sanctions up to and including dismissal from the class with a failing grade. Homework should be completed *individually* (not in teams or pairs), and it should be *your* work, not the work of someone else. One thing that you should *never do* is give someone your source code to look at… this often leads to cheating. Come by during office hours (or we'll arrange a time) for assistance on programs.

5. I expect you to adhere to the **dress code** as spelled out in the Student Handbook. This includes (men) removing caps while in class. Please wear shoes to class (flip flops are OK).

6. There is **no food or drink** permitted in the lab. This is expensive equipment and carpeting that is easily spoiled by an accident.

7. Lab computers may be used during class to **take notes and write programs**. Students that use the computers for other purposes (e-mail, surfing the Web, Facebook, games, etc.) will lose their privilege to use the lab computers.

8. Silence your phones, and **put them away**. It is very distracting to me and those around you when you text in class.

If you ever need assistance in this class or anything else, please don't hesitate to come by my office or give me a call.

Assessment

Harding University, since its charter in 1924, has been strongly committed to providing the best resources and environment for the teaching-learning process. The board, administration, faculty, and staff are wholeheartedly committed to full compliance with all criteria of the Higher Learning Commission of the North Central Association of Colleges and Schools. The university values continuous, rigorous assessment at every level for its potential to improve student learning and achievement and for its centrality in fulfilling the stated mission of Harding. Thus, a comprehensive assessment program has been developed that includes both the Academic units and the Administrative and Educational Support (AES) units. Specifically, all academic units will be assessed in reference to the following Expanded Statement of Institutional Purpose: **The University provides programs that enable students to acquire essential knowledge, skills, and dispositions in their academic disciplines for successful careers, advanced studies, and servant leadership.**

Students with Disabilities

It is the policy for Harding University to accommodate students with disabilities, pursuant to federal and state law. Therefore, any student with a *documented disability* condition (e.g. physical, learning, psychological, vision, hearing, etc.) who needs to arrange reasonable accommodations, must contact the instructor and the Disabilities Office at the *beginning* of each semester. (If the diagnosis of the disability occurs during the academic year, the student must self-identify with the Disabilities Director *as soon as possible* in order to get academic accommodations in place for the remainder of the semester.) The Disabilities Office is located in Room 205 in the Student Center, telephone: (501) 279-4019.

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"Whatever you do… do it all to the glory of God." – 1 Cor 10:31