# CSCI 470: Web Science Spring 2012

## **Course Description**

This course is designed to give the student an understanding of the plumbing that makes the Web work. It covers basic and some advanced technologies currently being used in Web based systems, and provides an overview of the technical issues surrounding the Web. Students successfully completing this course will learn to employ Web technologies to build high-value web applications. Prerequisite: CSCI 466

### **Instructor**

Keith Vertanen <u>kvertanen@mtech.edu</u> Museum 102, 496-4385 Office hours: Mon 3:00 – 4:00pm Wed 2:00 – 3:00pm Fri 3:30 – 4:30pm or by appointment

#### <u>Classes</u>

| Mon | 1:00 - 1:50pm | lecture | CBB 112 |
|-----|---------------|---------|---------|
| Wed | 1:00 - 1:50pm | lecture | CBB 112 |
| Fri | 1:00 - 1:50pm | lecture | CBB 112 |

### **Resources**

Class web page<a href="http://katie.mtech.edu/classes/csci470/">http://katie.mtech.edu/classes/csci470/</a>Moodle<a href="http://moodlemtech.mrooms3.net/course/view.php?idnumber=34307">http://moodlemtech.mrooms3.net/course/view.php?idnumber=34307</a>

### **Evaluation**

| А | 90% - 100% | Assignments                                       | 65% |
|---|------------|---|-----|
| В | 80% - 89%  | Paper + presentation                              | 15% |
| С | 70% - 59%  | Final project                                     | 20% |
| D | 60% - 69%  | Staff discretion (participation and extra-credit) | ±?% |
| F | 0% - 59%   |   |     |

## Late policy

All assignments are due at the time and date stated on the assignment. You get a total of four free late days. Each late day buys you a 24-hour extension to a submission deadline. If you are out of free late days, any further late submissions will be given a zero. Late days are on a per student basis (i.e. only students with sufficient late days get credit for a late group assignment). Weekends and holiday count as late days.

# Academic dishonesty

Cheating will not be tolerated and can result in failure in the course. Submitted work must be your own (except for designated group assignments). Under no circumstances should you copy another person's solution or code. A student providing code to another student is considered as guilty as the student copying it (faculty handbook 308.4).

## **General**

Any student who may need an accommodation due to a disability, please make an appointment to see me during my office hours. A letter from a Montana Tech Disability Coordinator authorizing your accommodations is needed.

# **Expectations**

E1. The student should be able to program fluently in Java. (CSCI 111, CSCI 121)

E2. The student should be able to program fluently in C. (CSCI 255)

E3. The student should understand the TCP/IP stack.(CSCI 466)

E4. The student should be able to program against the socket () API. (CSCI 466)

E5. The student should understand client server architectures. (CSCI 466)

# Course Outcomes

R1. The student will understand and be able to use the basic resources, data formats, and protocols used in the Internet. (CAC-a, i)

R2. The student will be able to build robust and load balanced client server software. (CAC-a, c,i, j, k; EAC-a, b, c, e, k, 1, 2)

R3. The student will understand and be able to use public/private key cryptography in an online e-Commerce transaction. (CAC-a, i; EAC-a, k)

R4. The student will understand state management on the Internet and apply this in program development. (CAC-a, i; EAC-a, k)

R5. The student will understand and be able to synthesize files in the dominant file formats and media types on the Internet. (CAC-a, i; EAC-a, k)