CS 1030 : Foundations – Computer Science (30639)
Department of Computer Science
College of Applied Sciences and Technology, Weber State University

COURSE SYLLABUS

Instructor:	Dr. Raji Lauffer	Term:	Spring 2013
Office:	TE 110D	Class Meeting Days:	Tuesday, Thursday
Phone:	7684 (ext)	Class Meeting Hours:	9:30AM – 11:20AM
E-Mail:	rajilauffer@mail.weber.edu (preferred contact method)	Class Location:	TE 202S
Website:	-	Lab Location:	-
Office Hours:	Monday, Wednesday 9:00AM – 11:30AM		

I. Welcome!

Welcome to CS 1030! I hope that as you learn, you will begin to understand and appreciate many of the basic concepts in computer science. I also hope that at the end of this course you will have developed basic problem solving and programming skills in computer science. Please feel free to ask questions or offer comments, suggestions during class or seek any help in the subject matter either during class or during office hours or by making an appointment or using the contact information provided above.

II. University Course Catalog Description

This course follows the core body of knowledge specified by the ACM which provides students with a broad overview of topics they might encounter within the Computer Science curriculum. The course is taught at an introductory level and includes topics such as: history of computers, computer architecture, operating systems, world-wide web and HTML, programming with Java, database, software engineering, networking, and more.

III. Course Overview

A solid foundational instruction to Computer Science is essential in undergraduate programs to ensure that all students are on the same footing for subsequent courses. Through a series of lectures, discussions, textbook exercises, quizzes, tests, and labs students will learn first hand about the field of computer science as both a degree and a career. The course will begin with some history about computing systems, followed by an understanding of numbering systems. The next few concepts will enable an understanding of the various components withing the computer and what makes it work as a machine. Once the machine is working on its own, we will study about how it can be used to connect to

other computers, how it can be programmed to solve simple problems. Lastly we will learn about human interfacing with the computer, security and ethical issues.

IV. Course Prerequisites/Co-requisite

Computer Literacy

V. Course Credits

4 credit hours

VI. Required Texts and Materials

Andreson, Greg; Ferro, David; Hilton, Robert. *Connecting with Computer Science*. 2nd ed. – Boston: Course Technology, 2011. Print.

VII. Supplementary Texts and Materials

Online chapter on 'Emerging Technologies' found in the companion website for the text book - www.cengage.com/computerscience/anderson/connecting2e

VIII. Course Objectives

At the end of this course, you will be able to appreciate, understand and describe fundamental concepts and terms in computer science. This includes but is not limited to computer architecture, operating system, number systems, data structures, file structures, networks, internet and software engineering. At the end of this course, you will be able to solve simple problems computationally by first understanding the problem, using an algorithm to solve the problem, following the steps of the algorithm to create software code, then executing this software code to find one or many solutions to the problem. You will also learn basic debugging skills to debug your software code. You will gain a better understanding of team dynamics, especially when solving computational problems and assignments as a group.

IX. Instructor's Objectives

To provide a warm, inviting, learning atmosphere and an opportunity to network with peers. To provide quality instruction in order to enable you to understand and describe fundamental concepts and terms in computer science. To help you solve computational problems by first understanding the problem, then solving the problem using algorithms/pseudo-code, coding the solutions and debugging a computer program.

X. Basis for Final Grade

Quizzes: There will be weekly quizzes for the class based on the materials covered during the week. Each quiz will be worth 10 points and consist of multiple choice, True/False type questions. The lowest

quiz will be dropped to provide for unforeseen circumstances. They will be administered through the course portal in WSU Online in class every other Thursday.

Group Assignments: These will consist of in-class team quizzes and/or written assignments. It will be based on the topics covered in the class and from the book. There will be 5 team members in a group. All group assignments will count towards the final score. All assignments are due at 11:59pm on the due date through WSU online.

Assignment Group Peer Review: After the last group assignment has been submitted, every student will have the chance to rate the other members of the groups based on different parameters. All reviews will be confidential. The instructor will assign a grade based on the reviews.

Exams: There will be one mid-term covering the course materials up until that point. There will be one final exam covering the course materials taught after the mid-term and into the finals. The exams will either be in-class or on the Chi-Tester.

Assessment	Percent of Final Grade
Quizzes	20%
Group Assignments	20%
Assignment Group Peer Review	10%
Midterm	25%
Final Exam	25%
	100%

Grading Scale:

Grading Scale (%)		
94-100		A
90-93		A-
87-89		B+
84-86		B
80-83		B-
77-79		C+
74-76		C
70-73		C-
67-69		D+
64-66		D
60-63		D-
0 - 59		E

XI. Grade Dissemination

Graded tests and materials in this course will be returned once they are graded. You can access your scores at any time using the online course Grade Book function in WSU Online. Please note that scores returned mid-semester are unofficial grades.

XII. Course Policies: Grades

Late Work Policy:

There are no make-ups for quizzes, group assignments, the midterm, or the final exam. Quizzes or Group assignments turned in late will be assessed a penalty: a half-letter grade if it is one day late, or a full-letter grade for 2-7 days late. Student work will not be accepted if overdue by more than seven days.

Extra Credit Policy:

None.

Grades of "Incomplete":

Current university policy concerning incomplete grades will be followed in this course. An 'Incomplete' may be giving only when the student, having satisfactorily completed approximately 80% of the required work, is unable to complete the class work for a legitimate reason (such as illness or accident).

"I really need to get a *C* or <*Fill in your desired grade*>" Policy:
In order to uphold academic rigor and integrity, student grades must be based on the degree to which the course requirements listed in the syllabus are fulfilled. Extra credit assignments are not allowed. If you approach the instructor anytime during the term claiming that special allowance should be made because you need a C to move forward in the program, graduate, receive financial aid, etc., your request will be denied and you will be referred to this clearly worded policy.

Rewrite Policy:

None.

Group Work Policy:

Everyone must take part in a group assignments. All members of a group will receive the same score; that is, the assignment is assessed and everyone receives this score. However, the cumulative grade for all group assignments is only 20% of your grade for this course. The other 10% of the grade is individual, and refers to your teamwork. Every person in the group will provide the instructor with a suggested grade

for every other member of the group, and the instructor will assign a grade that is informed by those suggestions.

XIII. Course Policies: Technology and Media

Email:

Course related email will be sent to your mail.weber.edu account. Students can email the instructor at the email address provided above. The Canvas portal for the course will also allow you to email the instructor or other students in your course. You can except to receive an answer to your email within 24 hours except during weekends.

Lab Usage:

Please DO NOT unplug any cables. Program storage is not guaranteed on lab computers – please bring a flash or external drive to class. DO NOT play games or view any non-class related websites during class.

Laptop Usage:

Students are welcome to use their personal laptops instead of the lab computers. Please install any required software before hand (please see **System Accounts** section for more information). This may include either a C++ or Java compiler based on your preferences. DO NOT play games or view any non-class related websites during class.

System Accounts:

Group Assignments can be completed at the WSU Computer Science lab. If you have access to a standard C++ or Java compiler, you may complete the assignments at your own desired location. In this case, it would not be necessary to visit the WSU Computer Science Lab.

Students are encouraged to avail of WSU's MSDN Academic Allicance (MSDNAA) to download many popular Microsoft products for home use. The website for the MSDNAA is http://msdnaa.cs.weber.edu. Various software applications are also available remotely through a Windows Terminal Server hosted by the Computer Science Department. The terminal server can be accessed at athena.cs.weber.edu:53243. For athena please use 'cs\' before your regular login id (which is typically your W#).

For more information, please see http://icarus.cs.weber.edu/index.html. If you have additional questions or have anything that needs further clarification, please contact CS lab personnel using the information listed in the website.

Classroom Devices:

Please check with the instructor before making any recordings of the class.

Course Wiki:

The first question in every group assignment will ask you to summarize the chapters you've learnt in the two weeks prior. In essense, each group will build a 'knowledge base' or communal notes about our course contents. Think of this as a repository of all the class information, the kind of thing you could study from.

University Writing Center:

The Writing Center is a free resource for WSU students. At the writing center, a trained writing consultant will work individually with you on anything you're writing, at any point in the writing process from brainstorming to editing. Appointments are recommended, but not required. For more information or to make an appointment, visit http://www.weber.edu/WritingCenter

Help Desk Contact Numbers:

Canvas - 6499 (ext)

Chi-Tester - 6477 (ext)

http://ced.weber.edu/wsuonline/fall-2012-student-newsletter/ (Student Newsletter with additional contact numbers, latest updates etc.)

XIV. Course Policies

Disability Access:

Weber State University is committed to providing accommodations for all persons with disabilities. This syllabus is available in alternate formats upon request. Any student requiring accommodations or services due to a disability must contact Student Services with Disabilities (SSD) in room 181 of the Student Services Center. SSD can also arrange to provide course materials (including this syllabus) in alternative formats, if necessary. For more information, please contact them at 801-626-6413, ssd@weber.edu or www.weber.edu/ssd

Attendance Policy:

Attendance is mandatory! Please do not schedule work or leisure activities that conflict with class. Attendance will be taken in every class but will *not* count towards your grade.

Professionalism Policy:

Please show up to class on time with a positive attitude and ready to learn. Stay until the end of each class and instruction is complete. Come to each session prepared to discuss the session materials. Participate fully in activities and respect and follow the directions of the instructor. Treat other participants

with due consideration and be respectful of their opinions. Be willing to share your experiences and knowledge with others. Use common sense and good judgement regarding your behavior during class. Per university policy and classroom etiquette; mobile phones, iPods, *etc*. **must be silenced** during all classroom and lab lectures. Those not heeding this rule will be asked to leave the classroom/lab immediately so as to not disrupt the learning environment. Please arrive on time for all class meetings. Students who habitually disturb the class by talking, arriving late, *etc*., and have been warned may suffer a reduction in their final class grade.

Academic Conduct Policy:

Academic dishonesty in any form will not be tolerated. A professional standard of performance in class is expected. Failure to maintain WSU academic ethics/honesty, including the avoidance of cheating, plagiarism, collusion, and falsification could result in failing the course and may result in hearings held and/or sanctions being imposed. The WSU student code states that students shall maintain academic ethic and honesty. To this end, the following activities are specifically prohibited:

a. *Cheating*, which includes but is not limited to:
i) Copying from another student's test;

ii) Using materials during a test not authorized by the person giving the test;

iii) Collaborating with any other person during a test without authorization;

iv) Knowingly obtaining, using, buying, selling, transporting, or soliciting in whole or in part the contents of any test without authorization of the appropriate University official

v) Bribing any other person to obtain any test;

vi) Soliciting or receiving unauthorized information about any test;

vii) Substituting for another student or permitting any other person to substitute for oneself to take a test.

b. *Plagiarism*, which is the unacknowledged (uncited) use of any other person's or group's ideas or work. This includes purchased or borrowed papers;
c. *Collusion*, which is the unauthorized collaboration with another person in preparing work offered for credit;
d. *Falsification*, which is the intentional and unauthorized altering or inventing of any information or citation in an academic exercise, activity, or record-keeping process;
e. Giving, selling, or receiving unauthorized course or test information;

f. Using any unauthorized resource or aid in the preparation or completion of any course work, exercise, or activity;

g. Infringing on the copyright law of the United States which prohibits the making of reproductions of copyrighted material except under certain specified conditions.

Please see Student Code at http://www.weber.edu/ppm/Policies/6-22_StudentCode.html for more information. WSU subscribes to TurnItIn.com, an electronic service that verifies the originality of student work. Enrollment in this course may require you to submit some or all of your assignments to it this semester, and documents submitted to TurnItIn.com are retained, anonymously, in their databases. Continued enrollment in this course constitutes an understanding of and agreement with this policy. For more information, see http://wsuonline.weber.edu/plagiarism/student_resources.asp

CS Department policy dictates that any verifiable evidence of student academic cheating, as defined and determined by the instructor, will result in: 1) an automatic failing grade for the class and 2) a report to the Dean of Students that will include the student's name and a description of the student's dishonest conduct. The University affords you certain rights, including the right to challenge the accusation of cheating. The Dean of Students will explains these rights to you if you are accused of cheating.

Exam Rescheduling Policy

Exams can only be taken on the days given unless arrangements are made to take them ahead of time. Please see Bad Weather Policy (below) for exceptions to this rule.

Bad Weather Policy:

Please do not take unnecessary risks in inclement weather. Programming tests will be rescheduled in the event of unsafe weather. Please sign up for the WSU Code Purple through your WSU online portal (under the My Weber tab)

Time Allocation:

Please expect to spend two to three hours of study per week for each credit hour of a university course. Computer and programming classes typically require time in the upper range.

XV. Schedule

Date	Course work	Topics to be Discussed in Class
01/08 (Week 1)	First day of class.	Welcome and Introductions
01/10 (Week 1)		Chapter 1 History and Social implications of computing (until 'Transistors in the Second Generation')
01/15 (Week 2)	Group Assignment 1 posted.	Chapter 1 History and Social implications of computing (end of chapter) Chapter 7 Numbering Systems and Data Representations

		(Converting between bases)
01/17 (Week 2)	Quiz 1 (18th and 19th). Chapter 1	Chapter 7 Numbering Systems and Data Representations (continued) (end of chapter)
01/22 (Week 3)		Chapter 3 Computer Architecture (Von Neumann architecture)
01/24 (Week 3)	Quiz 2 & 3 (25th and 26th). Chapters 7 & 3	Chapter 3 Computer Architecture (continued) (end of chapter)
01/29 (Week 4)	Group Assignment 1 due. Group Assignment 2 posted.	Chapter 8 Data Structures (Lists)
01/31 (Week 4)	Quiz 4 (1st and 2nd). Chapter 8	Chapter 8 Data Structures (continued) (end of chapter)
02/05 (Week 5)		Chapter 10 File Structures (File systems and Operating systems)
02/07 (Week 5)	Quiz 5 (8th and 9th). Chapter 10	Chapter 10 File Structures (continued) (end of chapter)
02/12 (Week 6)	Group Assignment 2 due.	Chapter 9 Operating Systems (Functions of an operating system)
02/14 (Week 6)	Quiz 6 (15th and 16th). Chapter 9	Chapter 9 Operating Systems (continued) (end of chapter)
02/19 (Week 7)		Chapter 6 Database Fundamentals (Normalization)
02/21 (Week 7)	Quiz 7 (22nd and 23rd). Chapter 6	Chapter 6 Database Fundamentals (continued) (end of chapter)
02/26 (Week 8)	Group Quiz (Group Assignment 3)	Mid-Term (Review)
02/28 (Week 8)		Mid-term (available on Chi-tester).
03/12 (Week 9)	Group Assignment 4 posted.	Chapter 4 Networks
03/14 (Week 9)	Quiz 8 (15th and 16th). Chapter 4	Chapter 5 The Internet
03/19 (Week 10)		Chapter 14 Programming I (Syntax of Programming language)
03/21 (Week 10)	Quiz 9 (22nd and 23rd) Chapter 5	Chapter 14 Programming 1 (continued) (end of chapter)

03/26 (Week 11)	Group Assignment 4 due. Group Assignment 5 posted.	Chapter 15 Programming II (Variables)
03/28 (Week 11)	Quiz 10 (29th and 30th) Chapters 14 & 15	Chapter 15 Programming II (continued) (end of chapter)
04/02 (Week 12)		Chapter 13 Software Engineering (continued) (Creating the design document)
04/04 (Week 12)	Quiz 11. (5th and 6th) Chapter 13	Chapter 13 Software Engineering (end of chapter)
04/09 (Week 13)	Group Assignment 5 due.	Chapter 11 The Human-Computer Interface
04/11 (Week 13)	Quiz 12. (12th and 13th) Chapter 2	Chapter 2 Computer Security and Ethics.
04/16 (Week 14)		Lab
04/18 (Week 14)	Last day of classes. Group Quiz (Group Assignment 6)	Review
04/23-04/25	Final Exam	

* Note: The Schedule is subject to revision

Disclaimer: Instructor reserves the right to update the syllabus and its contents in any way as deemed necessary. Every effort will be made to communicate these changes to the students as swiftly and clearly as possible.