Brief Course Description

This course has been designed to satisfy the mathematics core requirements. Students study algorithmic problem-solving techniques and gain an appreciation for some of the most interesting and significant results of computer science, as well as its intellectual and social significance. The course has both a mathematical and a laboratory component. Topics include four components: problem solving using computer (algorithm design and programming), skills dealing with contemporary computer applications, concepts that fundamental knowledge underpinning current information technology, and capabilities that deal with problem solving using modern Internet-based tools. Admitted computer science and computer engineering majors should NOT enroll in this course sequence. This course also teaches students very valuable skills in data analytics and communicating data using javascript and its libraries.

Prerequisites

There are no formal prerequisites for this course. However, if you have never used a computer before or do not feel comfortable using web browsers, email clients, instant messaging programs, word processors, or spreadsheets and would like a general introduction to these type of concepts, this is not the course for you. This semester we plan to use HTML5 that is a very popular language used by many social media and web applications. HTML5 is a combination of HTML (structure), Javascript (logic) and CSS (style).

Course Objectives

At the end of this course, each student should better understand how computers are designed, programmed, and how they are an integral part of our daily lives. Students will also have knowledge about skills, concepts, and capabilities associated with Information Technology, fundamentals of hardware, software, human-computer interfaces, and many internet based technologies.

Textbooks and Materials

The required textbook for this course is:

**Flency 5, by Lawrence Synder** (5th Edition)
ISBN-10: 0-13-282893-6
Pearson, 2013.

We will also use JavaScript: There are many free documents available online (free) and on Kindle (You don’t need to own a Kindle to read this):

- JavaScript and HTML5 Now By Kyle Simpson on Amazon Kindle (free)
- Also look at your text book: Part 4, Chapter 17 - 21
Course Organization

The course has both a lecture component and a recitation component. Each component plays a role in helping you achieve the objectives of the course. In order to do well in this course, you need to participate in both components.

- **Lectures**
  Conceptual and theoretical course content will be delivered primarily in the lectures, complemented by readings from the text books. You must review readings prior to attending a lecture, and you are expected to review the readings again, along with any notes you took, after the lecture. Some of the topics will be difficult. It is therefore absolutely essential that you ask questions whenever something is said which you do not understand.

  **Class interaction:** We will use quizzes via ublearns to determine the class participation grade. You are expected to attend all lectures. If you are unable to attend a lecture because of sickness or similar reasons, make sure you get the notes from a classmate. If you are out of class for an extended period of time because of sickness, notify your instructor as soon as possible, and see your instructor immediately upon your return in order to determine how to catch up.

- **Recitations**
  The recitations are an integral part of the course. In each recitation section, the instructor will answer questions about the currently assigned programming assignments (called labs). You are free to ask any questions about the labs and get assistance from the instructor during this time on your personal assignment. You are free to work on your assignments during this time. It is possible that you will be able to finish your lab work during the recitation time. However, it is also possible that you will need to work outside of lab time to finish the assignments.

  **Recitations do not meet on the first week of classes.**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Section</th>
<th>Time</th>
<th>Location</th>
</tr>
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<tbody>
<tr>
<td>10481</td>
<td>A1</td>
<td>9:00 AM - 10:50 AM</td>
<td>Capen 201</td>
</tr>
<tr>
<td>10487</td>
<td>A2</td>
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<td>10563</td>
<td>A4</td>
<td>1:00 PM - 2:50 PM</td>
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Course Evaluation

The following indicates the grade breakdown which will be used in assigning grades in the course. The right is reserved to make small adjustments to the breakdown if it is necessary.

- **Exam component (60% of final course grade)**
  There will be three exams: well-spaced within the semester: 50 min each). The last exam will be on the last day of classes. No make-up examination will be available. You must bring a valid form of picture ID with you to each examination (a UB Card will suffice). Please take note of the scheduled dates for the exams. You have to bring your pens and cannot borrow pens or writing instrument from anybody during the exam.

  - **Best score of the exam1 and exam2 along with that of the mandatory exam 3 will be used in computation of the exam component of the overall grade.**
• **Class participation (10% of final course grade)**
  This will involve (i) attendance and (ii) quizzes (at least 4) during the class time. More information about this will be explained in lecture. Quizzes will be good review for exams. If you are NOT present in class you will not get the grade for the quizzes. After all, it is for class participation!
  o Best three quizzes will be used in the computation of the class participation grade.

• **Programming Assignments (30% of final course grade)**
  There will be 5 programming labs assigned throughout the semester.
  o Best 3 lab scores of the first 4 labs along with that of the mandatory lab 5 will be used in computation of the Programming assignment/lab component of the overall grade.

• **Letter Grades (tentative)**

The following table indicates the number to letter grade mapping I will use to assign final grades at the end of the course. I will curve the overall grade according to the overall performance of the class. **Very Important: You have to pass the exam component to pass the course.**

<table>
<thead>
<tr>
<th>Score %</th>
<th>95–100</th>
<th>90–95</th>
<th>85–89</th>
<th>80–84</th>
<th>75–79</th>
<th>70–74</th>
<th>65–69</th>
<th>60–64</th>
<th>55–59</th>
<th>50–54</th>
<th>0–49</th>
</tr>
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<tbody>
<tr>
<td>Grade</td>
<td>A</td>
<td>A-</td>
<td>B+</td>
<td>B</td>
<td>B-</td>
<td>C+</td>
<td>C</td>
<td>C-</td>
<td>D+</td>
<td>D</td>
<td>F</td>
</tr>
</tbody>
</table>

**Re-grading**

If you have a question about the grading of any piece of work, you should consult with your recitation TA. Any questions about the grading of a piece of work must be raised within one week of the date that the work was returned by the instructor. In other words, if you do not pick up your work in a timely fashion, you may forfeit your right to question the grading of your work.

**Incomplete (I) grades**

We will follow the UB Undergraduate Catalog Statement on Incomplete Grades, found in the Undergraduate Catalog. University and department policy dictate that "I" grades can be given only if the following conditions are met:

• An Incomplete will only be given for missing a small part of the course.
• An Incomplete will only be given when the student misses work due to circumstances beyond his/her control.
• An Incomplete will only be given when the student is passing the course except for the missed material.
• An Incomplete is to be made up with the original course instructor within the time specified by the appropriate University regulation, and usually within the following semester.
• An Incomplete will not be given to allow the student to informally retake the entire course, and have that grade count as the grade of the original course.
Incompletes cannot be given as a shelter from poor grades. It is your responsibility to make a timely resignation from the course if you are doing poorly for any reason.

Disabilities

If you have a diagnosed disability (physical, learning, or psychological) that will make it difficult for you to carry out the course work as outlined, or that requires accommodations such as recruiting note-takers, readers, or extended time on exams or assignments, you must consult with the Office of Disability Services (25 Capen Hall, Tel: 645-2608, TTY: 645-2616, Fax: 645-3116, http://www.student-affairs.buffalo.edu/ods/). You must advise your instructor during the first two weeks of the course so that we may review possible arrangements for reasonable accommodations.

Counseling Center

Your attention is called to the Counseling Center (645-2720), 120 Richmond Quad. The Counseling Center staff are trained to help you deal with a wide range of issues, including how to study effectively and how to deal with exam-related stress. Services are free and confidential. Their web site is http://www.studentaffairs.buffalo.edu/shs/ccenter/

Distractions in the Classroom - Behavioral Expectations

The following is the text of a policy adopted by the Faculty Senate. You are expected to know and adhere to this policy.

The Student Conduct Regulations. Classroom "etiquette" expectations should include:

- Attending classes and paying attention. Do not ask an instructor in class to go over material you missed by skipping a class or not concentrating.
- Not coming to class late or leaving early. If you must enter a class late, do so quietly and do not disrupt the class by walking between the class and the instructor. Do not leave class unless it is an absolute necessity.
- Not talking with other classmates while the instructor or another student is speaking.
- If you have a question or a comment, please raise your hand, rather than starting a conversation about it with your neighbor.
- Showing respect and concern for others by not monopolizing class discussion. Allow others time to give their input and ask questions. Do not stray from the topic of class discussion.
- Avoiding audible and visible signs of restlessness. These are both rude and disruptive to the rest of the class.
- Focusing on class material during class time. Sleeping, talking to others, doing work for another class, reading the newspaper, checking email, and exploring the internet for other than course work are unacceptable and can be disruptive.

Academic Integrity

Source: http://www.cse.buffalo.edu/academics-academic-integrity.shtml

The academic degrees and the research findings produced by our Department are worth no more than the integrity of the process by which they are gained. If we do not maintain reliably high standards of ethics and integrity in our work and our relationships, we have nothing of value to offer one another or to offer the larger community outside this Department, whether potential
employers or fellow scholars. For this reason, the principles of Academic Integrity have priority over every other consideration in every aspect of our departmental life, and we will defend these principles vigorously. It is essential that every student be fully aware of these principles, what the procedures are by which possible violations are investigated and adjudicated, and what the punishments for these violations are. Wherever they are suspected, potential violations will be investigated and determinations of fact sought. In short, breaches of Academic Integrity will not be tolerated.

Departmental Statement on Academic Integrity in Coding Assignments and Projects

All academic work must be your own. Plagiarism, defined as copying or receiving materials from a source or sources and submitting this material as one's own without acknowledging the particular debts to the source (quotations, paraphrases, basic ideas), or otherwise representing the work of another as one's own, is never allowed. Collaboration, usually evidenced by unjustifiable similarity, is never permitted in individual assignments. Any submitted academic work may be subject to screening by software programs designed to detect evidence of plagiarism or collaboration.

It is your responsibility to maintain the security of your computer accounts and your written work. Do not share passwords with anyone, nor write your password down where it may be seen by others. Do not change permissions to allow others to read your course directories and files. Do not walk away from a workstation without logging out. In groups that collaborate inappropriately, it may be impossible to determine who has offered work to others in the group, who has received work, and who may have inadvertently made their work available to the others by failure to maintain adequate personal security. In such cases, all will be held equally liable. These policies and interpretations may be augmented by individual instructors for their courses. Always check the handouts and web pages of your course and section for additional guidelines.

Departmental and Course Policy on Violations of Academic Integrity
If, after following the procedures required by the University for investigation of suspected breaches of academic integrity, a student is found guilty, the policy of the department of Computer Science & Engineering is that the student minimally receive a grade of F in the course.

Instructor and Office Hours

<table>
<thead>
<tr>
<th>Email</th>
<th>Bina Ramamurthy (<a href="mailto:bina@buffalo.edu">bina@buffalo.edu</a>)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>345 Davis Hall</td>
</tr>
<tr>
<td>Time</td>
<td>Office hours: MWF: 11.00-11.50AM</td>
</tr>
<tr>
<td>Web Page</td>
<td><a href="http://www.cse.buffalo.edu/~bina/cse111/spring2015">http://www.cse.buffalo.edu/~bina/cse111/spring2015</a></td>
</tr>
<tr>
<td>Phone</td>
<td>716-645-3182: Best way to communicate with me is by email</td>
</tr>
</tbody>
</table>