Computer Science Department
cs.salemstate.edu

SYLLABUS **Spring, 2016**

CSC 200A Survey of Computer Science I **3 cr. [DII]**

Prerequisite(s): Fulfillment of the Basic Mathematics Competency Based Skills requirement and ability to use standard computer software (e.g., operating system features, word processing, email, and web browsers).

Instructor: Beifang Yi **Office**: MH 211A **Phone**: (978) 542-7246
email: byi@salemstate.edu **Hours**: WR (12:00pm-2:00pm) **Website**: http://cs.salemstate.edu/~byi/
W(4:00-4:30pm), R(5:30-6:00pm, & 8:20-8:50pm)

Section	Time	Room	Final Exam
S1	R 6:00pm—8:20pm	MH 206	**Thursday, 5/5, 6:20pm—8:20pm , MH 206**

Catalog description:

This course provides an overview of fundamental areas within the field of Computer Science, introducing basic vocabulary, central concepts, and typical applications. The areas surveyed include computer hardware, computer arithmetic, operating systems, programming constructs, programming languages, information storage and retrieval, databases, networking**,** and the social context of computing. Three lecture hours per week. This course satisfies the Computer Literacy Competency-Based Skills requirement.

Goals:

The aims of this course are to help the student to gain an appreciation for the breadth and variety within the computer science field and to be better prepared for the technical treatments presented in later courses. Specifically, the goals are:

CG01: to acquaint the student with many of the major subdivisions within academic computer science;
CG02: to provide a standard descriptive vocabulary for these topic areas;
CG03: to provide a survey of the most important concepts in each topic area.

Objectives:

Upon successful completion of this course the student will have demonstrated the ability to:

CO01: use correct technical terminology to name and describe the principal hardware and software components of a computer system;
CO02: understand the conversion of text and numeric data between "human readable" form and binary form;
CO03: understand and explain the instruction cycle ("fetch/execute cycle") and its role in the operation of a computer system;
CO04: use correct terminology to describe the various measurements of capacity and speed relating to a computer system;
CO05: name and understand the principal classifications of files and software, and the differences and distinctions among them;
CO06: name and explain the four principal programming paradigms;
CO07: understand the basics of computer networks;
CO08: name the principal functional components of an operating system and describe the main responsibilities of each one;
CO09: give a general description of such topic areas as database systems and artificial intelligence;
CO10: give a general description of such topics as software piracy, liability, privacy concerns, and computer security, and current thinking and controversies in each area.

Course Topics:

A detailed topics list and a general course bibliography can be found on the Computer Science Department website at http://cs.salemstate.edu/dept/index.php?page=184. Select CSC 200A to access a PDF document.

Text(s): (required) Computer Science Illuminated, 6th edition. Nell Dale & John Lewis. Jones and Bartlett, 2016. (ISBN 978-1-284-05591-7)

Additional references:

- Course website: http://cs.salemstate.edu/~byi/CSC200A/
- Textbook 3rd version online resources (**free**): http://csilluminated.jbpub.com.
- Textbook 6th version online resources: http://www.jblearning.com/ . Click "Redeem Code" and move on with the code that comes with your new textbook.
- *The Architecture of Computer Hardware and Systems Software: An Information Technology Approach*, 5th Edition, by Irv Englander, Wiley, 2014.

Cell phones:

Turn the ringer off, or, better yet, ***turn the phone off***.

Class Attendance:

Class attendance is ***STRONGLY* recommended: there are many of topics to be covered related with the coursework including illustrations of computing concepts).** Lecture will start promptly at the scheduled time. While class attendance does not *directly* affect your final grade, some of the material covered in class is not found (in the same form) in the text, so class attendance and notes are very important. Note that you are at all times responsible for materials and assignments discussed in class: if you miss a class, try to get lecture notes from a classmate and review them *before* the next lecture. We will use SSU's online course management system, Canvas (https://elearning.salemstate.edu/) to post assignments and announcements regarding the course topics and progress. You will need to visit Canvas (with your SSU Navigator use-name and password) for the course activities. Canvas uses your ***SSU-stored email*** for the communication between you and the instructor and thus you ***must use this email*** address. Each student is responsible for completing all course requirements and for keeping up with all that goes on in the course (whether or not the student is present).

Final Grade:

Final grade will be determined using the following grading weights:

	Grade-A	Grade-B	Grade-C
assignments	20%	0%	0%
quizzes	40%	60%	0%
final examination	40%	40%	100%
semester overall final grade	Max (*Grade-A*, *Grade-B*, *Grade-C*)		

Attendance is not used to calculate the final grade: however, note that you are at all times responsible for assignments and materials presented in class. The final examination will be a comprehensive exam that cover all the coursework presented in the class (including assignment and quiz questions). Please note that **Grade-A** scheme from the above table gives the **easiest** way of earning higher grade.

The following table shows how the course work is assessed against the course objectives:

	Assignments Quizzes	Final Examination
CO01	✓	✓
CO02	✓	✓
CO03	✓	✓
CO04	✓	✓
CO05	✓	✓

CO06	✓	✓
CO07	✓	✓
CO08	✓	✓
CO09	✓	✓
CO10	✓	✓

Assignments/Quizzes:

Homework will be assigned for each section/topic we cover. The problems pertaining to a section/topic completed during a given class will be due very soon. You can work on the problems freely with others from the class, unless it is for an assignment to be turned in and you are instructed to work alone. For the most part, the assignment solutions will be provided right after the deadlines and *the homework assignments will be evaluated through quizzes*.

Your grades of these assignments (not the quizzes) will be mostly based on how much you have completed the homework rather than the correctness of your solutions. The quiz questions will be mostly like the assignment questions and thus your quiz grades will give a very accurate evaluation of your understanding of the course topics and performance on both the quizzes and assignments. Please check the grading table above on how to calculate your overall final grade and also refer the penalty policy for late submissions below (i.e., Due Dates/Time).

Exams/Quizzes:

There will be one *comprehensive* final examination and several quizzes. Check the table under Final Grade above for these test grading weights.

Quizzes will be held in class hours. There will be about 5~7 quizzes to be held in the semester (one quiz with the lowest grade will not be used to calculate the overall semester final grade).

Missed Tests:

Tests (the final exam and quizzes) may ***not*** be made up except for *documented emergency* situations. If a test must be made up, arrangements must be made with the instructor to take the test before it is discussed in class (usually within a week of the test being administered).

Due Dates/Time:

- You will **lose 50%** of your assignment credits if you turn in your assignment after the deadline and there will be **20% (more) penalty for each week** for your late submission.
- **No assignments (including semester project) will be accepted after the final examination**.
- Should there be an emergency that prevents you from completing your assignments/projects on time, you will need to send *an email request* for the extension on the coursework submission. The instructor will reply to this request email with a specific number of days for the extension period or a new deadline for the assignment and you will need to keep *this email as a record of the extension approval*. Only a request email does ***not*** guarantee the extension approval.

Study Groups:

While I strongly encourage study groups, I require that each student hand in his/her answers in her/his own words - if two answers are highly similar to each other, neither will receive credit.

When working on your programming projects, you may discuss with others the project topics, the algorithms and methodologies related to the project; but when you work on writing the code, this coding work should be 100% of your own work. **If two answers/written code segments come out exactly the same or highly similar, neither will receive credit and/or further actions will be taken** (such as reporting to the department and/or university). Given the nature of most of the projects, homework questions and writing assignments, it will be almost impossible for two people to come up with highly similar answers UNLESS they copy.

Academic Integrity:

Academic Integrity Policy and Regulations can be found in the University Catalog and on the University's website (http://catalog.salemstate.edu/content.php?catoid=13&navoid=1295#Academic_Integrity). The formal regulations are extensive and detailed - familiarize yourself with them if you have not previously done so. A concise summary of and direct quote from the regulations: "Materials (written or otherwise) submitted to fulfill academic requirements must represent a student's own efforts". *Submission of other's work as one's own without proper attribution is in direct violation of the University's Policy* and will be dealt with according to the University's formal Procedures.

All students are expected to be familiar with the academic regulations, including those regarding Academic Integrity, for Salem State University as published in the college catalog. In addition, each student is responsible for completing all course requirements and for keeping up with all that goes on in the course (whether or not the student is present).

Salem State University is committed to providing equal access to the educational experience for all students in compliance with Section 504 of The Rehabilitation Act and The Americans with Disabilities Act and to providing all reasonable academic accommodations, aids and adjustments. Any student who has a documented disability requiring an accommodation, aid or adjustment should speak with the instructor immediately. Students with Disabilities who have not previously done so should provide documentation to and schedule an appointment with the Office for Students with Disabilities and obtain appropriate services.

In the event of a university declared critical emergency, Salem State University reserves the right to alter this course plan. Students should refer to http://www.salemstate.edu/ for further information and updates. The course attendance policy stays in effect until there is a university declared critical emergency. In the event of an emergency, please refer to related course announcement and alternative study guide and materials at Canvas (https://elearning.salemstate.edu/) by logging to the course link at Canvas . Students should review the plans and gather all required materials before an emergency is declared.

Please remember that if, for any reason, you decide to drop this course, you **MUST** do so officially through the Registrar's office. The last day to withdraw from a course this semester is **April 15th**.

Note: This syllabus represents the intended structure of the course for the semester. If changes are necessary, students will be notified in writing and via all regular class communication mechanisms (class discussion, emails, and/or the course link at Canvas (https://elearning.salemstate.edu/).