CS 101 006 - Intro to Computer Science - 3 credits  
Spring 2015  
Class meeting time: Tuesday and Thursday, 12:30pm - 1:45pm  
Class Location: Ross Hall 2261  
All class material is accessible through Blackboard.

Instructor: Mehrgan Mostowfi, Ph.D.  
School: Mathematical Sciences  
Office location: Ross Hall 2240B  
Office hours: Tuesday and Thursday, 11:00am - 12:30pm, or email to schedule an appointment.  
Email: mehrgan.mostowfi@unco.edu  
Homepage: http://www.mathsci.unco.edu/facstaff/mostowfi/

Required textbook: The required textbook is Computer Science Illuminated, Fifth Edition, by Nell Dale and John Lewis. There will be assigned readings to complement the lectures. These readings will come from handouts and/or material in the textbook. The required supplementary textbook is A Byte of Python by Swaroop C. H., which is available for free from the author's website.

Catalog course description: Breadth-first study of computer science concepts. Topics include machine architecture, programming, problem solving techniques, algorithms, operating systems, networking, security, computations, graphics, GUIs, AI, databases, software engineering, and social issues.

Course objectives: As a result of successfully completing this course, the students will:

1. Obtain a solid, broad understanding of how a computing system works.  
2. Develop an appreciation for and understanding of the evolution of modern computing systems.  
3. Be given enough information about computing so that they can decide whether they wish to pursue the subject further.

Prerequisites:  
- C or above in College Algebra

Course topics: This course will cover the following topics:

- Week 1 (Jan 12 – 18, 2015): Overview and layers of a computing system, Information Layer, Number Systems  
- Week 2 (Jan 19 – 25, 2015): Number Systems  
- Week 3 (Jan 26 – Feb 1, 2015): Data Representation  
- Week 4 (Feb 3 – 8, 2015): Data Representation, The Hardware Layer, Gates and Circuits  
- Week 5 (Feb 9 – 15, 2015): Gates and Circuits  
- Week 6 (Feb 16 – 22, 2015): Gates and Circuits, Computing Components  
- Week 7 (Feb 23 – Mar 1, 2015): Computing Components, Wrap-up for Midterm Exam  
- Week 8 (Mar 2 – 8, 2015): Midterm Exam, Computing Components  
- Week 10 (Mar 16 – 22, 2015): Spring Break (No Classes)  
- Week 12 (Mar 30 – Apr 5, 2015): Programming in Python
• Week 13 (Apr 6 – 12, 2015): Programming in Python
• Week 14 (Apr 13 – 19, 2015): Programming in Python
• Week 15 (Apr 20 – 26, 2015): Programming in Python
• Week 16 (Apr 27 – May 3, 2015): Wrap-up for Final Exam
• Week 17 (May 4 – 10, 2015): No classes, comprehensive final exam, project due

**Grading:** Students will earn a grade based on assignments, quizzes, project, a mid-term exam, and a comprehensive final exam. The grade breakdown is:

• Assignments: 20% (five assignments, assigned roughly every other week, the lowest grade will be dropped)
• Quizzes: 18% (four quizzes, given roughly every other week, the lowest grade will be dropped)
• Project: 15% (due on Sunday, May 10, 2015 by 11:59pm - early submission is very highly recommended, late submissions will not be accepted)
• Midterm exam: 21% (held in class on Tuesday, March 3, 2015)
• Comprehensive final exam: 26% (held in class on Thursday, May 7, 2015, 10:45am - 1:15pm)

The grading scale is "no worse than" ("+" or "." grades MAY be given to marginal performance, but do not expect them):

- A = 90% through 100% and above
- B = 80% through 89.99%
- C = 70% through 79.99%
- D = 60% through 69.99%
- F = Less than 59.99%

**Course policies:**

• I expect you to make sure your UNCO email works and check your email regularly. Email will be the main means of communication between you and me. Not having checked your email will not be accepted as an excuse for missing due dates or other important information.

• If you must submit work late you need to talk to me at least one-week before the due date in question. Otherwise, late work cannot be accepted except in cases of verifiable emergencies.

• It is highly recommended that you attend class. I may choose to track attendance.

• We will be observing all university policies regarding religious holidays and disability policies. Any student requesting disability accommodation for this class must inform the instructor giving appropriate notice. Students are encouraged to contact Disability Support Services ([www.unco.edu/dss](http://www.unco.edu/dss)) at (970) 351-2289 to certify documentation of disability and to ensure appropriate accommodations are implemented in a timely manner.

• Incomplete ("I") grades will only be given in the case of severe hardship including verifiable medical emergencies or legal troubles. Simply being "overloaded" and unable to complete your work is not grounds for an "I" grade.

• Out of courtesy to other students please make sure that you turn off, or place in silent mode, your cell phone.

**Academic Integrity/Academic Dishonesty:** I expect students to be honest and not cheat on their assignments, quizzes, project, and exams. Students may work together on the project with one other person in the class. Both students will earn the same grade. The exams must be completed without giving or accepting assistance from other students. Any source code copied from another source must be credited as such. Open source software used must maintain all headers and other information as required by the open source license used. I expect you to know the University's policies on student conduct, academic dishonesty, etc. UNC's policies and recommendations for academic misconduct will be followed. For additional information, please see the Dean of Student's website, Student Handbook link and current catalog.

*Every part of this syllabus is subject to adjustment as the semester progresses. Please contact me as soon as possible if you have particular interest in material that is relevant to the class topic but not covered in enough detail; I will be happy to accommodate reasonable requests for modifications.*

Last update on May 1, 2015