



CS 105: Introduction to Computing

Fall 2013

Version 2.15, Last Modified: 08/15/2013

Instructor: Michael Leverington, PhD

- E-mail: Use WebCampus Email
- Phone: (775) 784-1414
- Office: SEM 230
- Office hours:
 - see office hours posted on WebCampus
- Class webpage: WebCampus, with linked web pages

Teaching Assistants:

- Posted on WebCampus (General Course Information Folder)
- TA Access:
 - E-mail: Use WebCampus Email
 - Office: SEM 255A
 - Office hours: Posted on WebCampus

Lectures:

- Monday & Wednesday, 12:00 n - 12:50 pm, WRB 2003

Labs:

- Laboratories will begin on Tuesday, 10 September
 - Section 1103: Tuesday, 2:30-4:30 pm, LME 321
 - Section 1101: Wednesday, 2:00-4:00 pm, LME 321
 - Section 1102: Thursday, 2:00-4:00 pm, LME 321
 - Section 1104: Thursday, 4:00-6:00 pm, LME 321

Important Notes and Dates:

- **Final Exam:** Friday 13 December, 2013, 12:30 – 2:30 pm, WRB 2003
- **Holidays:**
 - Monday, 02 September, Labor Day
 - No lab will be conducted this week
 - Friday, 25 October, Nevada Day
 - Lab is conducted this week
 - Monday, 04 November, Veteran's Day
 - Lab is conducted this week
 - Thursday/Friday, 28/29 November, Thanksgiving Day/Family Day
 - No lab will be conducted this week

Required Textbooks:

- None.

Supplemental Books:

- None. Individual references will be provided during classes.

Course Description:

- **Catalog:**
Introduction to essential concepts and practices in computing. Design, assemble, and operate basic computer hardware and software in a collaborative environment.

Prerequisites:

- None

Course Objective:

- Students will be provided examples of various Computer Science and Engineering (CSE) experiences, activities, interactions, and learning as specified in the Course Outcomes below. Students will be provided exposure to upper level CSE activities that go beyond the fundamental courses; exposure to, and familiarity with, the various courses available in UNR’s CSE program; and exposure to possible careers and research in CSE fields. Students will be exposed to the culture and society of CSE, and to those components of CSE that provide enjoyment, reward, and satisfaction.

Course Outcomes:

- The course outcomes are skills and abilities students should have acquired by the end of the course. These outcomes are defined in terms of the ABET Accreditation Criterion 3 Program Outcomes which are relevant to this course. All Criterion 3 Program Outcomes are listed in the next subsection and those relevant to this course are identified in the following Table.

Program Outcomes	Course Outcomes	Assessment Methods/Metrics	Program Objectives Impacted
4	Students will interact and work with a variety of other students in the course of class activities and laboratories	Conduct class and laboratory activities with varying groups of 2 or more other students	4

6	Students will discuss and resolve ethical conflicts involving engineering, science, and technology	Reading, writing, and class discussion assignments and interactions	4
7	Students will demonstrate effective written communication in response to questions related to knowledge, application, and implementation of Computer Science and Engineering processes	Written response and reaction papers to several different course topics; discussion and interactive communication on some topics	3, 4
8	Students will analyze and discuss predicted impacts of computers and technology on educational institutions and society	Written reaction papers and class discussion in response to presentations on computer and technology impacts	2, 4
10	Students will be exposed to contemporary issues related to Computer Science and Engineering	Reading, writing, and class discussion assignments and interactions	3, 4
11	Students will conduct active hands-on interaction with hardware and software related to CSE; students will solve a variety of problems using various electronic and engineering tools	Conduct laboratory activities, and provide paper, web-oriented, and computer displayed results	2,3,4

Program Outcomes:

1. an ability to apply knowledge of computing, mathematics, science, and engineering.
2. an ability to design and conduct experiments, as well as to analyze and interpret data.

3. an ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs, within realistic constraints specific to the field.
4. an ability to function effectively on multi-disciplinary teams.
5. an ability to analyze a problem, and identify, formulate and use the appropriate computing and engineering requirements for obtaining its solution.
6. an understanding of professional, ethical, legal, security and social issues and responsibilities.
7. an ability to communicate effectively with a range of audiences.
8. the broad education necessary to analyze the local and global impact of computing and engineering solutions on individuals, organizations, and society.
9. a recognition of the need for, and an ability to engage in continuing professional development and life-long learning.
10. a knowledge of contemporary issues.
11. an ability to use current techniques, skills, and tools necessary for computing and engineering practice.
12. an ability to apply mathematical foundations, algorithmic principles, and computer science and engineering theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.
13. an ability to apply design and development principles in the construction of software systems or computer systems of varying complexity.

Program Objectives:

- Within 3 to 5 years of graduation our graduates will:
 1. be employed as computer science and engineering professionals beyond entry level positions or be making satisfactory progress in graduate programs.
 2. have peer-recognized expertise together with the ability to articulate that expertise as computer science and engineering professionals.
 3. apply good analytic, design, and implementation skills required to formulate and solve computer science and engineering problems.
 4. demonstrate that they can function, communicate, collaborate and continue to learn effectively as ethically and socially responsible computer science and engineering professionals.

Course Topics:

- The Computing Machine
- Making the Computer Work
- History of Computers and Technology
- Creating Computer Programs
- Communicating between Systems
- Interacting with Computers
 - (Hardware & Software interfaces)
- How Computers Think
- Computers as Entities
- CS&E Career and Life

Course Policies:

- Attendance. Students are expected to attend, and be on time, for every class. This demonstrates professionalism and consideration for your fellow students and your Instructor. While the course does not have an attendance policy, students who miss class and/or are late for class may experience an impact on their grade by missing classroom activities or homework submission opportunities
- Home and Class Work. Students are responsible for implementing all assigned activities, and for turning in all assigned materials as specified in the assignments. With very few, if any exceptions*, homework, class work, quizzes, and/or any other graded activities may not be made up, or turned in after their due date. *See Athletics and Illness topics below
- Electronic Devices - Noise. Students are expected to demonstrate professionalism and courtesy by either silencing or turning off all cell phones and/or other alarm or audible indicator devices. If any device causes a disturbance in the class, the student owned by this device may be asked to leave the class
- Electronic Devices - Distractions. Students are expected to demonstrate professionalism and courtesy by coming to class prepared to be engaged and involved with the class activities, whatever they may be. Students using electronic devices such as cell phones, net books, laptops, etc., must be using them exclusively for classroom involvement. If it is observed that students are using any of these devices for reasons other than classroom involvement, a two-tiered response will be set in motion: 1) all students who use devices will be required to sit in the front one or two rows of the classroom; or, if this does not curtail the inappropriate behavior, 2) all electronic devices will be banned from the classroom. ***Note: If you appreciate the opportunity to use your electronic device(s) in the classroom and you notice someone else abusing the privilege, you may save yourself some difficulty by advising the individual to change his or her behavior***

- Student Engagement. There will be a great deal of interaction and class/group activity in this course. For that reason, students are expected to be engaged in, and focused on, the classroom discussion and/or activities. In addition, everyone involved with this class is expected to act in a professional manner, and interact with her or his peers with that same professional demeanor
- Classwork Paper. As a result of many of the classroom activities, you are likely to be turning in some of your activities on paper. Unless otherwise specified, the paper should be 8½ x 11 inch (or close to this measurement), and it may not have shredded edges such as occurs when paper is torn from a spiral notebook. Since shredded edges and smaller sized paper are difficult to manage, and may easily be lost, your quiz, activity, or other response may not be accepted if your paper does not meet these specifications.
- WebCampus. It is expected that you have access to WebCampus on the first day of class. If this is not the case, you must acquire a NetID ([here](#)) as soon as possible to resolve this issue. In addition, you are expected to check on WebCampus for news or updates, your grades, emails, announcements, and so on **every week day**. It is a really good idea to check it once or twice on weekends as well.
- Course/Policy Modification. The Instructor reserves the right to add to, and/or modify any of the above policies as needed to maintain an appropriate and effective educational atmosphere in the classroom and the laboratory. In the case that this occurs, all students will be notified in advance of implementation of the new and/or modified policy

UNR Athletics:

- If you are involved with any *university-sponsored* athletic activities that will have an impact on your attendance, you must provide your Instructor with a letter from your coach and/or the UNR Athletic Department as soon as possible, but no later than the end of the second week of classes. This should include the official schedule of your activities which will impact your attendance throughout the semester. You must also advise the Instructor one week in advance of any absences related to the athletic activities.

Illness:

- If you are sick or have a health-related reason for not attending class, it will be very helpful to the Instructor and TAs if you let us know as soon as you are aware of the problem. You can do this via WebCampus email or by calling the Instructor. Most activities in both the class and the lab require special set up conditions, so it can be difficult to conduct make-up operations. However, if you contact the Instructor in a timely manner, we may be able to adapt to the circumstances

Assignments, Examinations and Grading:

- **Homework Assignments:**

- There will be a number of homework assignments. These consist of a variety of usually written responses or reactions to reading, research, or other course interaction with Computer Science conditions. There are assignments almost every week in this course, but in some cases they may not be announced during class. You are responsible to check WebCampus at least once a day and at least once or twice over the weekend to check for these assignments. All homework assignments must be printed with at least 12 point Times New Roman font or equivalent; homework that is difficult to read and/or hand written will likely not be graded.

- **Classwork Activities and Assignments:**

- There will also be a number of classwork assignments. These may include individual and/or group writing or analysis activities, or other written or developed products. If you are not in class and miss these activities, you will not be able to get credit for them

- **Quizzes:**

- There will be at least two Words of the Days quizzes

- **Exams:**

- There will not be any examinations other than the final examination

- **Late Submission Policy:**

- Generally speaking, most materials will not be accepted if they are late. However, if the Instructor is advised ahead of time that a student will miss class or an activity for a legitimate reason, this policy may be waived. You are responsible to conduct and turn in all assignments made in class and on WebCampus, but if you have a question on this, ask the Instructor

- **Grading Structure:**

- The final grade will be based on (Tentative, subject to change):

Course	105
Weekly Activities (assignments, in-class exercises, quizzes, etc.)	40%
Laboratory Activities	30%
CSE Notebook	20%
Final Examination and Related Activities	10%

- Each graded item will be scored on a simple rubric, scores will be added and normalized to a percentage, and then multiplied by the appropriate weight specified above. Letter grades are earned as follows: A: 90% and above, B: 80% and above, C: 70% and above, D: 60% and above, F: below 60%. A plus/minus (+/-) grade will only be assigned when it accurately represents a grade very near a cutoff point, and there is no automatic rounding (in either direction)
- The CSE Notebook, specified below, will be presented at least twice during the course, and the week before the final examination day
- In any event, failure of a student to attend the final examination, or failure to complete any other final evaluation components will result in the loss of all credit for the “Final Examination and Related Activities” course component
- You will be provided your ongoing grade on WebCampus which, barring unusual circumstances, will never be more than 5 weekdays behind. Check this regularly for errors and/or omissions. If we make a mistake, we will be glad to fix it as long as we can verify the problem. Grades posted and not challenged for three weeks after a graded activity date will be considered correct, and are unlikely to be subject to modification.

- **CSE Notebook or Website:**

- There are several kinds of semester projects that can be assigned, but many of the goals for this course include learning about courses, research, people, and activities related to CSE. The goal for this semester project is for you to take something with you from this class that you can use at least for your career as a student here at UNR. Since many of you are just getting started on your University career, you can create this notebook or website and organize and keep information that will be important for you to access in the next few years. You are only required to keep it long enough to finish the course; however, if you do a good job with it, you will get a good grade AND have a good reference for the future

- For the notebook requirement, you must do one of two things:
 - purchase a notebook (at least 1", hard-cover, 3-hole binder), with a set of at least 8 divider tabs
 - create a website solely dedicated to your CS 105 Notebook requirement
- Create dividers in your notebook or on your website as follows:
 - a. Outside and inside front covers of the notebook or default page of your website **must** show your name and section
 - b. Advising Paperwork
 - c. Careers
 - d. Courses
 - e. People
 - f. Research
 - g. Journal, Personal Notes & Cool Stuff
 - h. Syllabus & Class Notes
 - i. Returned Assignments
 - Note: For all the above items, if you choose to create a website, all required papers or artifacts must be scanned and uploaded to your website
- The CSE Notebook or website will be graded at least twice during the semester and just before the final examination. The grading will be conducted as follows:
 - course components that have already happened will be selected in advance of the grading process; you will receive credit for each item **easily** and **readily** found in your notebook that reflects information on the specified course components
 - Any additional items found in the CSE Notebook that demonstrate student activity beyond the requirements may be considered for additional credit
- Notebook Due Dates:
 - Thursday, 26 September
 - Thursday, 31 October
 - Thursday, 05 December

- **Academic Integrity:**

- All rights and regulations concerning academic honesty and plagiarism, as they appear in the current University catalog, will be upheld in this course. Please review the definition of academic integrity on the [University Web Page](#). In addition to the stated University standards, any assignment found to have more in common with any other source (e.g., one or more fellow students, any online reference, etc.) than is considered reasonable or acceptable by the course Instructor will be considered to be academic dishonesty. Note that, like the University policy, this definition includes the person who provided the material(s) in question. Per Computer Science and Engineering Department policy, any student who has demonstrated academic dishonesty in this course will receive a minimum academic penalty of: 1) failure of the assignment (i.e., assigned grade will be zero), and 2) a letter indicating the academic integrity breach and the associated sanction will be forwarded to the Office of Student Conduct to be placed in the student's permanent file. Depending on the egregiousness of the activity and the discretion of the Instructor, sanctions beyond these minimums may also be applied.

- **Disability Statement:**

- If you have a disability for which you will need to request accommodations, please contact the Instructor or someone at the Disability Resource Center (Thompson Building, Suite 101), as soon as possible to arrange for appropriate accommodations.

- **Academic Success Services:**

- Your student fees cover usage of the Math Center (784-4433 or www.unr.edu/mathcenter/), tutoring Center (784-6801 or www.unr.edu/tutoring/), (784-6801 or www.unr.edu/tutoring/), and University Writing Center (784-6030 or www.unr.edu/writing_center/). These centers support your classroom learning; it is your responsibility to take advantage of their services. Keep in mind that seeking help outside of class is the sign of a responsible and successful student

- **Video or Audio Recording of Lectures or Course Activities:**

- Surreptitious or covert video-taping of class or unauthorized audio recording of class is prohibited by law and by Board of Regents policy
- This class or any parts of it may be recorded to video or audio media ONLY with the written permission of the instructor. In order to accommodate students with disabilities, some students may have been given permission to record class lectures and discussions. Therefore, students should understand that their comments during class may be recorded.

- **Campus Safety (from the Campus Police Department):**

- Make personal safety your number one priority. Awareness, Avoidance and Risk Reduction is the best way to not be a victim.
- Travel in groups of two or more and always travel in well-lit, heavily traveled areas.
- Tell someone where you are going and when you will return.
- Carry a whistle or noise maker. This can serve as a reminder to exercise caution, and can alert someone in the area that you need help.
- Be alert! Look around you; be aware of who is on the street and in the area. Make it difficult for anyone to take you by surprise.
- If listening to music, keep the volume low so you can hear what is going on around you.
- If you know you are going to be working late, plan ahead as to how you will get to your vehicle or home safely.
- Use Campus Escort or University Police Cadets to get you to your vehicle safely. Campus Escort operates 7 days a week during academic semesters from 7:00 P.M. – 1:00 A.M and can be contacted at 742-6808. Police Services Cadets operate Monday through Thursday from 6:00 P.M. – 12:00 A.M. during academic semesters. Student cadets can be contacted at 745-5921 or 745-7505. When these services are not operating, contact the duty officer through regional dispatch at 334-COPS (2677) and request an escort.

- **Epilogue:**

- Two of the goals of this course are for you to learn about Computer Science and Engineering, and to enjoy what you are doing. Obviously, you must show up in body and spirit to achieve these goals.
- One of the goals is to help you find your place in the culture and society of Computer Scientists and Engineers. To accommodate this goal, the Instructor will be actively placing you in situations where you can meet and work with a variety of your fellow students. This sometimes makes people uncomfortable, but the discomfort is usually short-lived. Any worthwhile endeavor requires people to work together toward common goals, and in Computer Science and Engineering, it has never been (and never will be) possible to be successful working alone. You may come up with the next great sorting algorithm or the breakthrough microprocessor, but it will never matter if you have not learned to communicate and work with others. Besides, working with others and meeting new people is much more fun.

- The course involves a very broad spectrum of the various things you can do with CSE here at UNR as well as outside the University walls. While we will not be exploring any one part of CSE in great detail, you will always have the opportunity to do so yourself. The primary role of the Instructor and Teaching Assistant(s) is to show you what is interesting and exciting about CSE and to help you to get some ideas as to the things in CSE that interest you the most. However, if you find topics or areas of interest in CSE that you wish to pursue in greater depth, please ask her or him about it. There are an uncountable number of resources in the CSE Department, and all of them are dedicated to you and your future; we will help you find what you need.