

CS 135: Computer Science I
Spring 2016
Sections 1001, 1002, 1010

Instructor:
Phone:
Office:
Email:
Office hours:
Class website:

Catalog Description

Problem-solving methods and algorithm development in a high-level programming language. Program design, coding, debugging, and documentation using techniques of good programming style. Program development in a powerful operating environment. Three hours lecture and one hour lab. Prerequisite: MATH 127 or 128. 3 credits.

Required Text: C++ Programming: From Problem Analysis to Program Design, 7th edition by D,S, Malik

Recommended Web References:

[Useful Unix Commands](#)
[How to Design Programs](#)

Student Outcomes Covered by this Course

- Outcome A: Analyze problems and identify the computing and/or mathematical techniques appropriate to their solution.
- Outcome B: Apply design and development principles in the construction of software systems.

Course Objectives and Expected Learning Outcomes

Upon completion of Computer Science I, students will be able to

- develop algorithmic solutions to problems and translate their algorithms into C++ programs that meet a provided set of specifications
- compile and execute their programs in the Linux operating environment and use appropriate testing and debugging strategies
- use appropriate control structures (sequence, selection, and iteration) in their programs
- develop modularized programs using functions and passing parameters
- understand and properly use strings and file streams
- understand and properly use one-dimensional arrays and records
- demonstrate and use good programming style and adequately document programs

Prerequisite

To qualify for this course you must have earned a C or better in MATH 127 (Precalculus II) or MATH 128 (Precalculus and Trigonometry). The prerequisite may also be met with an equivalent transfer course, an SAT Math score of 630+, an ACT Math score of 28+, or completion of a calculus course at the college level.

Grading Scale			
Grade	Percentage	Grade	Percentage
A	92-100%	C	72-78%
A-	90-92%	C-	70-72%
B+	88-90%	D+	68-70%
B	82-88%	D	62-68%
B-	80-82%	D-	60-62%
C+	78-80%	F	below 60%

Grading Criteria	
Exam I	25%
Exam II	25%
Exam III	25%
Programming Assignments	15%
Exercises	10%

Exams

Three exams will be given during the semester. Makeup exams must be taken within 5 days of original exam date.

Exercises

As each new topic is encountered, exercises will be assigned. They may consist of written assignments, questions from the text, and/or short programs to write. Exercises will be turned in to the lab instructors for evaluation.

Programming Assignments

Several medium sized programming problems will be assigned throughout the semester. These programs will usually integrate several simpler concepts. They will be submitted to the instructor of the course for evaluation and must be properly documented and follow good programming practices.

Final Grade Calculation

Final grades are computed using the Grading Criteria percentages. Here is a hypothetical example. Assume Exams I, II, and III are each worth 100 points, all exercises are worth a total of 200 points, and programming assignments are worth 400 points. If a student scores 90, 75, 88 on the exams, has 150 exercise points, and 360 programming assignment points, then his/her final percentage is $90/100*25 + 75/100*25 + 88/100*25 + 360/400*15 + 150/200*10 = 84.25 = B$.

Labs

CS 135 includes a mandatory lab that meets once a week. During lab sessions, students will be taught to use the Computer Science lab (TBE B361). This instruction will include an introduction to the Linux operating system, Emacs (a text editor), and basic programming techniques. Additionally, students will use lab time to practice their programming skills (see Exercises description above).

Spring 2016 Lab Instructors/Lab Monitors	
tba	tba@unlv.nevada.edu
tba	tba@unlv.nevada.edu
tba	tba@unlv.nevada.edu

Academic Misconduct

Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility and professionalism. By choosing to join the UNLV community, students accept the expectations of the Student Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling in UNLV assume the obligation to conduct themselves in a manner compatible with UNLV's function as an educational institution.

An example of academic misconduct is plagiarism. Plagiarism is using the words or ideas of another, from the Internet or any source, without proper citation of the sources. See the Student Academic Misconduct Policy (approved December 9, 2005) located at: <https://www.unlv.edu/studentconduct/student-conduct>

Department of Computer Science Academic Integrity Policy

Each student enrolled in a course offered by the Department of Computer Science is expected to do his/her own work when preparing written or programming assignments, as well as, examinations. He/She must adhere to the academic integrity policy provided by his/her instructor and the university. It is also each student's responsibility to notify the instructor if he/she becomes aware of any activities that would violate the academic integrity policy of the class.

CS 135 Academic Integrity Policy

Each student is required to do his/her own work on examinations, written and programming assignments and exercises without outside assistance except as noted

below. It is also each student's responsibility to notify the instructor if he/she becomes aware of any activities that would violate the academic integrity policy of the class.

Assistance that is allowed in the preparation of coursework:

- information/code provided in the textbook
- information/code provided in the class notes (on the website)
- assistance provided by lab instructors/course instructor
- assistance provided by the College of Engineering Tutoring Center (as long as the tutor is not writing the code)
- use of the Internet to look up a formula that is needed to perform a calculation or to verify the accuracy of a calculation
- use of the Internet as a reference for additional C++ language details

Examples of **prohibited practices include, but are not limited to:**

- copying answers/code from a fellow student, friend, relative
- providing answers/code to a fellow student
- collaborating (sharing) answers/code
- using the Internet to develop a strategy for solving a problem (finding an algorithm)
- using the Internet to solicit a solution to an assignment
- asking and/or paying someone to complete your assignments

Consequences of violating the academic policy:

- an Alleged Academic Misconduct Report will be completed and a copy sent to the [Office of Student Conduct](#)
- 1st violation - student(s) will receive a grade of zero on the assignment/examination
- 2nd violation - a grade of F will be issued for the course; no further assignments/labs/exams can be completed for credit

Computer Accounts

All students in CS 135 will receive a computer science (cs) computer account. Check your Rebelmail for a message containing your cs login name and password. The cs account allows you to log in and use the computers in the TBE B361 lab and to print in the computer lab on ponderosa (student printer in TBE B361). Students receive 100 pages of free printing. Additional pages may be purchased (3 cents per page) in whole dollar amounts.

Class Rules

1. All students are expected to do their own work on exercises, assignments and examinations. (See above policy statement.)
2. All programs must be able to **compile and run** on the computer science server (bobby.cs.unlv.edu) using the g++ compiler.
3. Check your [Rebelmail](#) on a regular basis. Communications regarding the class will be sent to that address.

Drop Policy

The last day to drop the course is Friday, April 1, 2016.

Copyright

The University requires all members of the University Community to familiarize themselves with and to follow copyright and fair use requirements. **You are individually and solely responsible for violations of copyright and fair use laws. The university will neither protect nor defend you nor assume any responsibility for employee or student violations of fair use laws.** Violations of copyright laws could subject you

to federal and state civil penalties and criminal liability, as well as disciplinary action under University policies. Additional information can be found at:

www.unlv.edu/provost/copyright

Disability Resource Center (DRC)

The UNLV Disability Resource Center (SSC-A 143, <http://drc.unlv.edu/>, 702-895-0866) provides resources for students with disabilities. If you feel that you have a disability, please make an appointment with a Disabilities Specialist at the DRC to discuss what options may be available to you.

If you are registered with the UNLV Disability Resource Center, bring your Academic Accommodation Plan from the DRC to the instructor during office hours so that you may work together to develop strategies for implementing the accommodations to meet both your needs and the requirements of the course. Any information you provide is private and will be treated as such. To maintain the confidentiality of your request, please do not approach the instructor before or after class to discuss your accommodation needs.

Religious Holidays

Any student missing class quizzes, examinations, or any other class or lab work because of observance of religious holidays shall be given an opportunity during that semester to make up missed work. The make-up will apply to the religious holiday absence only. It shall be the responsibility of the student to notify the instructor no later than the end of the first two weeks of classes, January 29, 2016, of his or her intention to participate in religious holidays which do not fall on state holidays or periods of class recess. For additional information, please visit:

<http://catalog.unlv.edu/content.php?catoid=6&navoid=531>.

Incomplete Grades

The grade of I - Incomplete - can be granted when a student has satisfactorily completed three-fourths of course work for that semester/session but for reason(s) beyond the student's control, and acceptable to the instructor, cannot complete the last part of the course, and the instructor believes that the student can finish the course without repeating it. The incomplete work must be made up before the end of the following regular semester. If course requirements are not completed within the time indicated, a grade of F will be recorded and the GPA will be adjusted accordingly. Students who are fulfilling an Incomplete do not register for the course but make

individual arrangements with the instructor who assigned the I grade.

Tutoring

The Academic Success Center (ASC) provides tutoring and academic assistance for all UNLV students taking UNLV courses. Students are encouraged to stop by the ASC to learn more about subjects offered, tutoring times and other academic resources. The ASC is located across from the Student Services Complex (SSC). Students may learn more about tutoring services by calling 702-895-3177 or visiting the tutoring web site at: <http://academicsuccess.unlv.edu/tutoring/>.

UNLV Writing Center

One-on-one or small group assistance with writing is available free of charge to UNLV students at the Writing Center, located in CDC-3-301. Although walk-in consultations are sometimes available, students with appointments will receive priority assistance. Appointments may be made in person or by calling 702-895-3908. The student's Rebel ID Card, a copy of the assignment (if possible), and two copies of any writing to be reviewed are requested for the consultation. More information can be found at: <http://writingcenter.unlv.edu/>

Library Resources

Students may consult <https://www.library.unlv.edu/consultation> with a librarian on research needs. For this class, the subject librarian is Sue Wainscott. (https://www.library.unlv.edu/contact/librarians_by_subject). UNLV Libraries provides resources to support students' access to information. Discovery, access, and use of information are vital skills for academic work and for successful post-college life. Access library resources and ask questions at <https://www.library.unlv.edu>.

Rebelmail

By policy, faculty and staff should e-mail students' Rebelmail accounts only. Rebelmail is UNLV's official e-mail system for students. It is one of the primary ways students receive official university communication such as information about deadlines, major campus events, and announcements. All UNLV students receive a Rebelmail account after they have been admitted to the university. Students' e-mail prefixes are listed on class rosters. The suffix is always @unlv.nevada.edu. Emailing within WebCampus is acceptable.

Final Examinations

The University requires that final exams given at the end of a course occur at the time and on the day specified in the final exam schedule. See the schedule at: <http://www.unlv.edu/registrar/calendars>.

Tentative Schedule
CS 135: Computer Science I
Section 1001: MW 10:00-11:15am TBE B174
Section 1002: TuTh 10:00-11:15am TBE B178
Section 1010: MW 2:30pm-3:45pm TBE B176
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DATE	TOPICS	READING
Jan 18-22	Martin Luther King Jr Day Recess - Mon, Jan 18 Introduction to course - syllabus Introductory Concepts	Ch 1
Jan 25-29	Lab Hardware/Software Fundamental C++ program structure	Ch 2
Feb 1-5	Fundamental program structure continued Constants, type coercion and casting	Ch 2
Feb 8-12	Interactive input Libraries and library functions Formatting output	Ch 3
Feb 15-19	Washington's Birthday Recess - Mon, Feb 15 Review for Exam I Selection Structures - if statement	Ch 4
Feb 22-26	Exam I - Ch 1-3, lab topics Sec 1001, 1010 - Mon, Feb 22 Sec 1002 - Tues, Feb 23 Selection structures - if statement	Ch 4
Feb 29-Mar 4	Selection structures - if statment More Linux commands	Ch 4
Mar 7-11	Batch processing, Linux redirection Repetition structures - for and while statements	Ch 5
Mar 14-18	Void functions	Ch 6
Mar 21-25	Spring Break	
Mar 28-Apr 1	Value-returning functions Scope of Identifiers Review for Exam II Last Day to Drop Class - Apr 1	Ch 6
Apr 4-8	Exam II - Ch 4-6, lab topics Sec 1001, 1010 - Mon, Apr 4 Sec 1002 - Tues, Apr 5 Strings	Ch 2

Apr 11-15	Arrays	Ch 8
Apr 18-22	Filestreams for I/O Sorting and Searching	Ch 3 Ch 9
Apr 25-29	Records	Ch 9
May 2-6	Catch up and review for Exam III	
Final Exam Week - May 9-13	Sec 1001 - Mon, May 9, 10:10am-12:10pm Sec 1002 - Tues, May 10, 10:10am-12:10pm Sec 1010 - Wed, May 11, 3:10pm-5:10pm	