CS 135: Computer Science I (THINK)

Summer, 2020

Course Information

Instructor Information:

Instructor: Erin Keith

Course Description:

Introduction to modern problem solving and programming methods. Emphasis is placed on algorithm development. Introduction to procedural and data abstraction, emphasizing design, testing, and documentation.

Course Pre/Co-requisites:

Algebra II

Required texts, course materials (will be ordered and provided by THINK):

Textbook – Learning with Python: How to Think Like a Computer Scientist
http://greenteapress.com/thinkpython/thinkCSpy/thinkCSpy.pdf

Course Arrangement:

The course has two components: Lecture and Laboratory. **Both** lecture and lab components are mandatory. Note specifically that the laboratory component is mandatory. All assignments, homework, quizzes, and exams are required.

Student Learning Outcomes:

- 3, 5 Students will be able to demonstrate that they can analyze simple problem statements to identify relevant information and design small computer programs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability to solve such problems (ABET 3, 5).
- 11. Students will be able to demonstrate that they can use a modern programming language and development environment to design and implement small computer programs (ABET 11)
- 13. Students will be able to demonstrate that they can use relevant design and development principles in the construction of simple computer programs (ABET 13).

Silver Core objectives

This course develops competency in UNR's Silver Core Objective 12, Ethics, with at least one week of student engagement.

Mapping

Student outcome 3 is mapped to UNR's Silver Core Objective 12.

Assessment

CSE SLO/CO	Course Specific SLO	Assessment Methods
3/CO12	Students will be able to demonstrate that they can analyze simple problem statements to identify	At least one programming assignment on methods of protecting privacy and the **ethical** and security issues

	relevant information and design small computer programs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability to solve such problems (ABET 3, 5)	concerned with private information storage, lifetime, and transmission. Lectures will address ethics in the context of this assignment.
4	An ability to function effectively on multidisciplinary teams (ABET 4)	Programming projects
5	Students will have an ability to analyze a problem, and identify, formulate and use the appropriate computing and engineering requirements for obtaining its solution.	Programming projects and exams
11	Students will be able to demonstrate that they can use a modern programming language and development environment to design and implement small computer programs (ABET 11)	Programming Projects and exams
13	Students will be able to demonstrate that they can use relevant design and development principles in the construction of simple computer programs (ABET 13).	Programming projects and exams

Course Requirements:

Assignments

Programming assignments require designing, implementing, and perhaps demonstrating your solutions to posed problems. We will be using the Ubuntu 14.04 distribution of the Linux operating system (OS) and you may work on any of the machines in the Engineering Computing Center (www.ecc.unr.edu) in SEM 231. You may also install the CS135 environment on your machine. Instructions and support for this will be on WebCampus. Each programming assignment will be posted on WebCampus, along with submission instructions.

Quizzes

There may be announced and unannounced quizzes.

Extra Credit Programming Assignments
On rare occasions, extra credit opportunities may be announced. **Honors students are required to complete extra credit programming assignments**.

Grading Criteria, Scale, and Standards:

We will not use the plus/minus grading system. Your grade will be one of A, B, C, D, or F.

A: 90% - 100%
B: 80% - 89%
C: 70% - 79%
D: 60% - 69%
F: <60%

Your final grade will be based on:

Item	Percentage
Programming assignments	50%
Midterm exams	20% (10% each)
Labs and Quizzes	10%
Final Exam	20%

Late Work or Make-up Exams Policies:

Late programming assignments or exercises will be accepted for 3 days after the assignment is due, with a 20% per day penalty.

Exams are individual efforts. A severe penalty will be given for collusion or other form of academic dishonesty. The usual penalty for academic dishonesty on assignments or an exam is failure in the course.

Carefully read the section on Academic Standards Policy for Students found at the Office of Student Conduct website. Your continued enrollment in this course implies that you have read documents on this website.

For individual assignments, do not show, exchange, or copy code. Using another person's code or having another person "ghost write" a lab will be considered academic dishonesty.

Additional information on academic dishonesty can be found in the "UNR Statement on Academic Dishonesty," below.

Course Calendar or Topics Outline:

Holidays:

- None

Important Dates:

- Midterm1: (tentative) Friday 7/17
- Midterm2: (tentative) Friday 7/24

- Final Exam: Friday 7/31. **If you cannot take the final exam on this date and time, you must drop this class and take it during another semester.**

Topics:

- Problem Solving
- Algorithms
- Data Types
- Expressions
- Assignment, decisions, and iteration
- Functions and parameter passing
- Input/Output
- File Operations

University Policies

Statement on Academic Dishonesty:

"The University Academic Standards Policy defines academic dishonesty, and mandates specific sanctions for violations. See the University Academic Standards policy: UAM 6,502."

Statement of Disability Services:

Use either the traditional or online statement, in addition to the last sentence regarding on third party materials.

For Traditional and Seated Classrooms:

"Any student with a disability needing academic adjustments or accommodations is requested to speak with me or the Disability Resource Center (Pennington Achievement Center Suite 230) as soon as possible to arrange for appropriate accommodations."

For Online Courses:

"If you are a student who would normally seek accommodations in a traditional classroom, please contact me as soon as possible. You may also contact the Disability Resource Center for services for online courses by emailing drc@unr.edu or calling 775-784-6000. Academic accommodations for online courses may be different than those for seated classrooms; it is important that you contact us as soon as possible to discuss services. The University of Nevada, Reno supports equal access for students with disabilities. For more information, visit the Disability Resource Center."

This course may leverage 3rd party web/multimedia content, if you experience any issues accessing this content, please notify your instructor.

Statement on Audio and Video Recording:

"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 may be videotaped or audio recorded 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."

The University of Nevada, Reno is committed to providing a safe learning and work environment for all. If you believe you have experienced discrimination, sexual harassment, sexual assault, domestic/dating violence, or stalking, whether on or off campus, or need information related to immigration concerns,

please contact the University's Equal Opportunity & Title IX office at 775-784-1547. Resources and interim measures are available to assist you. For more information, please visit the Equal Opportunity and Title IX page.

In addition to the required information listed above, it is strongly recommended that the syllabus include:

- Methods for communicating with students outside the classroom regarding matters such as class cancellations, meeting times, or room changes
- More detail about what constitutes academic dishonesty, with a concrete list or examples of "dos and don'ts" in the context of the class
- **Statement for Academic Success Services**: "Your student fees cover usage of the Math Center (775) 784-4433, Tutoring Center (775) 784-6801, and University Writing Center (775) 784-6030. 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."