South Plains College
Common Course Syllabus: COSC 1301

Department: Mathematics, Engineering, and Computer Science

Discipline: Computer Science

Course Number: COSC 1301

Course Title: Introduction to Computing

Available Formats: hybrid

Campuses: Levelland

Course Description: Overview of computer systems—hardware, operating systems, the Internet, and application software including word processing, spreadsheets, presentation graphics, and databases. Current topics such as the effect of computers on society, and the history and use of computers in business, educational, and other interdisciplinary settings are also studied. This course is not intended to count toward a student's major field of study in business or computer science.

Prerequisite: Successful completion with a grade of 'C' or better in MATH 1314

Credit: 3 **Lecture:** 3 **Lab:** 0

Textbook: (Optional) Computer Science - an Overview, Edition 13, J. Glenn Brookshear and Dennis Brylow. ISBN 9780134875460. Pearson, 2019. You do NOT need an online access code.

Supplies: You must have access to a laptop or desktop where you can write programs and complete homework.

This course partially satisfies a Core Curriculum Requirement: None

Core Curriculum Objectives addressed:

- **Communications skills**—to include effective written, oral and visual communication
- **Critical thinking skills**—to include creative thinking, innovation, inquiry, analysis, evaluation and synthesis of information
- **Empirical and quantitative competency skills**—to manipulate and analyze numerical data or observable facts resulting in informed conclusions

Student Learning Outcomes: Upon completion of this course and receiving a passing grade, the student will be able to:

1. Describe the fundamentals of computing infrastructure components: hardware, application software, operating systems, and data communications systems.
2. Delineate and discuss societal issues related to computing, including the guiding principles of professional and ethical behavior.
3. Demonstrate the ability to create and use documents, spreadsheets, presentations and databases in order to communicate and store information as well as to support problem solving.
4. Describe the need and ways to maintain security in a computing environment.

Student Learning Outcomes Assessment: A pre- and post-test questions will be used to determine the extent of improvement that the students have gained during the semester

Course Evaluation: There will be departmental final exam questions given by all instructors.

Attendance/Student Engagement Policy: Attendance and engagement are the most critical activities for success in this course. The instructor maintains records of the student's attendance and submission of assignments throughout the semester. The student is expected to attend at least eighty percent (80%) of the **total** class meetings **and** submit at least eighty percent (80%) of the **total** class assignments to have the best chance of success. If the student fails to meet these minimum requirements, the instructor may remove the student from the class with an X, upon their discretion, to help the student from harming their GPA. If the student can not receive an X, the instructor will assign an F.

Plagiarism violations include, but are not limited to, the following:

1. Turning in a paper that has been purchased, borrowed, or downloaded from another student, an online term paper site, or a mail-order term paper mill;
2. Cutting and pasting together information from books, articles, other papers, or online sites without providing proper documentation;
3. Using direct quotations (three or more words) from a source without showing them to be direct quotations and citing them; or
4. Missing in-text citations.

Cheating violations include, but are not limited to, the following:

1. Obtaining an examination by stealing or collusion;
2. Discovering the content of an examination before it is given;
3. Using an unauthorized source of information (notes, textbook, text messaging, internet, apps) during an examination, quiz, or homework assignment;
4. Entering an office or building to obtain an unfair advantage;
5. Taking an examination for another;
6. Altering grade records;
7. Copying another's work during an examination or on a homework assignment;
8. Rewriting another student's work in Peer Editing so that the writing is no longer the original student's;
9. Taking pictures of a test, test answers, or someone else's paper.

Student Code of Conduct Policy: Any successful learning experience requires mutual respect from the student and the instructor. Neither the instructor nor the student should be subject to others' rude, disruptive, intimidating, aggressive, or demeaning behavior**.** Student conduct that disrupts the learning process or is deemed disrespectful or threatening shall not be tolerated and may lead to disciplinary action and/or removal from class.

South Plains College policies concerning diversity, disabilities, non-discrimination, Title IX Pregnancy Accommodations, and Campus Concealed Carry Statements can be found here: https://www.southplainscollege.edu/syllabusstatements/.

South Plains College policies, return to campus plan, and protocols regarding COVID-19 can be found here: https://www.southplainscollege.edu/emergency/covid19-faq.php.

SPC Bookstore Price Match Guarantee Policy: If you find a lower price on a textbook, the South Plains College bookstore will match that price. The difference will be given to the student on a bookstore gift certificate! The gift certificate can be spent on anything in the store.

If students have already purchased textbooks and then find a better price later, the South Plains College bookstore will price match through the first week of the semester. The student must have a copy of the receipt and the book has to be in stock at the competition at the time of the price match.

The South Plains College bookstore will happily price match BN.com & books on Amazon noted as *ships from and sold by Amazon.com*. Online marketplaces such as *Other Sellers* on Amazon, Amazon's Warehouse Deals, *fulfilled by* Amazon, BN.com Marketplace, and peer-to-peer pricing are not eligible. They will price match the exact textbook, in the same edition and format, including all accompanying materials, like workbooks and CDs.

A textbook is only eligible for price match if it is in stock on a competitor's website at time of the price match request. Additional membership discounts and offers cannot be applied to the student's refund.

Price matching is only available on in-store purchases. Digital books, access codes sold via publisher sites, rentals and special orders are not eligible. Only one price match per title per customer is allowed.

Note: The instructor reserves the right to modify the course syllabus and policies, as well as notify students of any changes, at any point during the semester.

SPC Tutors

Tutoring is FREE for all currently enrolled students. Make an appointment or drop in for help at any SPC location or online! Visit the link below to learn more about how to book an appointment, view the tutoring schedule, get to know the tutors, and view tutoring locations.
http://www.southplainscollege.edu/exploreprograms/artsandsciences/teacheredtutoring.php

Tutor.com

You also have 180 FREE minutes of tutoring with tutor.com each week, and your hours reset every Monday morning. Log into Blackboard, and click on the "Course Resources" link on the left-hand side to access "Tutor.com."

Instructor Course Information: Fall 2024

Time: Section 001: M/W 01:00 PM - 02:15 PM (Mondays Face to Face, Wednesdays Online)
Section 002: T/Th 01:00 PM - 02:15 PM (Tuesdays Face to Face, Thursdays Online)
Section 003: T/Th 02:30 PM - 03:45 PM (Tuesdays Face to Face, Thursdays Online)

Course Title: Introduction to Computing and Logic
Instructor: Don Pathirage, Ph.D.
Room: Levelland Math Building 125B
Email: dpathirage@southplainscollege.edu

Office Hours:

Mon (F2F)	Tues (F2F)	Weds (Online)	Thurs (Online)	Friday (Online)
12:00PM-1:00PM	12:00PM-1:00PM 3:45PM -5:00PM	12:00PM-1:00PM	12:00PM-1:00PM 3:45PM-5:00PM	12:00PM-1:30PM Or by appointment

Assignment Policy: Current assignments and due dates will be announced in the class. If you are absent, you are still responsible for the assignment for the next class. Short quizzes may be given announced or unannounced. Quizzes will be used to assess if the student is practicing and mastering the materials. **No makeup short quizzes will be given - an absence equals a zero for the quiz grade**.

All assignments will be given a *Due Date*. No assignments will be accepted late.

Grading Policy There will be two major exams and a final exam. All exams/quizzes **must** be taken in person. No student will be exempt from the final. Your lab grade will be calculated from: short quiz grades, homework assignments, and programming assignments. The final average will be computed as follows:

Two Major Exams:	40%
Final Exam:	20%
Attendance	10%
Homework & Quizzes:	30%

The numeric grade scale spans from 100 to 0 and the letter grades will translate to: 100-90 = A, 89 – 80 = B, 79 -70 = C, 69 – 60 = D, 59 – 0 = F. All tests will count towards the final grade, i.e. no exam grades will be "dropped". Only students who miss an exam due to a college-approved absence are eligible to take the makeup exam. (Going out of town, family reunions, vacations, etc.., are not considered approved absences) If you miss an exam, it is your responsibility to contact me as soon as possible using email. If permission is granted for a makeup exam, I will want it to be taken before the next class meeting. Missing an exam is a serious matter and it is up to the student to take the proper action, otherwise, a zero will be recorded for that exam. **Your work schedule or any other schedule must not overlap with the class schedule.** When sending an email, please include your course number and section number in the subject line. For example: **COSC1436-001: [Specify the reason for the contact]**. (Note: if you make a **zero** on the attendance questionaries, it will remain a **zero**. Otherwise, it will be upgraded to 100 at the end of the semester.)

Additional Course Objectives: *In this course, the student will...*

- Develop a general understanding of computer terminology and computer hardware.
- Understand how all types of data are represented and stored in binary form.
- Understand what constitutes an algorithm, how to process an algorithm, and how to write an algorithm.
- Learn the binary, hexadecimal, and octal number systems and how they relate to computers.
- Understand simple circuit designs.
- Complete projects using application programs appropriate for math, engineering, and computer science.
- learn fundamental concepts of programming including data types, and control structures using Python as the programming language.

COSC1301 Fall 2024 Course Outline

This proposed schedule may change as the semester progresses! Always refer to announcements for exact dates.

Week Start date	**Topics**
1 Aug 26 - Aug 30	Introduction to Computer Science The role of algorithms and history
2 Sep 02 - Sep 06	Labor Day Holiday Overarching Themes of Computer Science.
3 Sep 09 - Sep 13	Data Storage Binary Number System
4 Sep 16 - Sep 20	Representing information as bit patterns Hexadecimal Number System
5 Sep 23 - Sep 27	**Quiz 1 & Homework 1 is due**. More about the Hexadecimal system Computer Systems: Hardware and Software
6 Sep 30 - Oct 04	**Exam 1 *(in-person: Room M125)* & Homework 2 is due.** Two's complement representation
7 Oct 07 - Oct 11	Two's complement operations and overflow Truth Tables and Logic Gates
8 Oct 14 - Oct 18	**Quiz 2.** Simple circuits More on circuits and adders
9 Oct 21 - Oct 25	Pseudocode, and Flowcharts. Introduction to Python.
10 Oct 28 - Nov 01	**Exam 2 *(in-person: Room M125)* & Homework 3 is due.** Learning about programming using Python: Variables, expressions, & statements
11 Nov 04 - Nov 08	Performing calculations Program Design and Execution Data Types and Processing
12 Nov 11 - Nov 15	Formatting numbers and relational operators Python conditional structures and Boolean expressions
13 Nov 18 - Nov 22	**Homework 4 is due.** Python conditional structures Relational Operators Nested Structures Python: Control Structures
14 Nov 25 - Nov 29	Condition controlled loops *Thanksgiving Holiday*
15 Dec 02 - Dec 06	**Homework 5 is due.** Repetition Structures. Infinite loops, sentinels, and input validation

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