

South Plains College
Common Course Syllabus: COSC 1436

Department: Mathematics, Engineering, and Computer Science

Discipline: Computer Science

Course Number: COSC 1436

Course Title: Programming Fundamentals I

Available Formats: hybrid

Campuses: Levelland

Course Description: This course introduces the fundamental concepts of structured programming, and provides a comprehensive introduction to programming for computer science and technology majors. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This course assumes computer literacy. (This course is included in the Field of Study Curriculum for Computer Science.)

Prerequisite: Successful completion with a grade of 'C' or better in COSC 1301

Credit: 4 **Lecture:** 3 **Lab:** 3

Textbook: Starting Out with C++: From Control Structures through Objects, 9th(or 10th) Edition, Tony Gaddis. 2018. ISBN 978-0-13-449837-9. You must have a paper or digital copy of this book. We will use the same book for COSC1437. You do NOT need to buy an online access card with this book.

Supplies:

- **Computer:** Access to a laptop or desktop is mandatory for writing and testing lab programs.
- **Transportation:** You must have reliable transportation to attend in-person classes.
- **Software:** You must install **Visual Studio Community** on your home computer. It is free to download from visualstudio.microsoft.com/downloads/.
 - *Note:* You must sign in with your SPC email account to ensure it does not expire after the 30-day trial period. This software is also available on all lab computers.

Students are responsible for ensuring their programming projects are accessible from any location. You are required to use SPC cloud storage, OneDrive, or email your code to yourself to ensure availability. Please note that claiming a lab is complete but inaccessible—due to forgotten files, a forgotten laptop, a forgotten flash drive, or technical oversight—will be treated as an incomplete assignment and will receive a grade of **zero**. All labs must be executed live in front of the instructor, and students must be prepared to explain their code and answer questions regarding their program's logic.

We will use Turingscraft CodeLab online software for lab assignments. Access to this website is free at: <https://www.turingscraft.com/>

An access code for this platform will be posted to Blackboard upon the conclusion of Chapter 2.

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, and 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 how data are represented, manipulated, and stored in a computer.
2. Categorize different programming languages and their uses.
3. Understand and use the fundamental concepts of data types, structured programming, algorithmic design, and user interface design.
4. Demonstrate a fundamental understanding of software development methodologies, including modular design, pseudo code, flowcharting, structure charts, data types, control structures, functions, and arrays.
5. Develop projects that utilize logical algorithms from specifications and requirements statements.
6. Demonstrate appropriate design, coding, testing, and documenting of computer programs that implement project specifications and requirements.
7. Apply computer programming concepts to new problems or situations.

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, at their discretion, to help the student from harming their GPA. If the student cannot 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.

Absence/Missed Assignments Due to Medical Condition:

A doctor's note is required and will be used by SPC to verify your absence with the health facility. If you miss an assignment due to a medical condition, you must contact your instructor as soon as possible and

complete the missed work within one week of the return date listed by the doctor. Failure to do so will result in a grade of zero.

Absence/Missed Assignments Due to SPC-Approved Absence:

If you miss an assignment due to an SPC-approved absence, you must provide a letter from SPC or the professor associated with the event. For example, if the absence is for a sporting event and the excuse letter is from a professor, include their contact information for verification.

You must notify your instructor at least 24 hours prior to missing the assignment and complete the missed work no later than one week from the original due date. Failure to meet these requirements will result in a grade of zero for the missed assignment.

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>.

Class Modality Changes Due to College Closure:

If South Plains College is closed due to weather-related conditions or any other unforeseen circumstances, all classes will transition to an online format. Students will be required to complete the assigned coursework remotely and meet all posted deadlines.

AI USE STATEMENT:

You may use generative artificial intelligence (AI) tools in this class, as doing so aligns with our course learning goals. You are responsible for ensuring the information you submit based on an AI query does not contain misinformation, unethical content, or violate intellectual property laws. Students will learn to leverage AI as a learning and development tool, including AI-assisted coding, debugging, and critical evaluations of AI outputs. Please contact your instructor if you have questions regarding this course policy.

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>

Online Tutoring

You receive 180 free minutes of Brainfuse tutoring each week, with hours resetting every Monday morning. To access Brainfuse, log in to Blackboard, select Tools from the left-hand menu, and click the

Brainfuse link. You will be automatically logged in for free tutoring.

Tutor Availability:

- Monday–Thursday: 8:00 PM – 8:00 AM
- Friday 6:00 PM – Monday 8:00 AM

For questions regarding tutoring, please email tutoring@southplainscollege.edu or call 806-716-224

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Lab and Exam Policies

1. Attendance & Absences

- **Mandatory Attendance:** Attendance during in-person sessions is required for the entire class period. Showing up only to demonstrate a lab and then leaving, or leaving before the class ends, will result in a grade of zero for that day's work.
- **Approved Absences:** Only official college-approved excuses (e.g., a doctor's note or a university-sanctioned event letter) are accepted.
- **Unexcused Absences:** Personal events—such as family reunions, graduations, out-of-town trips, or pre-purchased airline tickets—are not approved absences. Missing class for these reasons will result in a zero grade for the missed assignment.
- **Remote Work:** No exams or labs may be taken from home. Moving out of the city or claiming a third party's illness as a reason for absence will not be accepted and will prevent you from completing the course.

2. Lab Execution & Submission

- **Live Demonstration:** All labs must be executed live in front of the instructor. You must be prepared to explain your logic and answer questions about how your program was written.
- **File Accessibility:** You are responsible for ensuring your code is accessible via SPC OneDrive or email.
- **No Technical Excuses:** Claiming a lab is finished but inaccessible (e.g., "I forgot my laptop," "I forgot my flash drive," or "I forgot to email the file") will result in a grade of zero.
- **Incomplete Labs:** If you stay for the entire class period but cannot finish the lab, the instructor *may* grant an extension until the next class period at their discretion.

3. Exams & Retakes

- **Missed Exams due to Illness:** If you miss an exam due to illness, you must take the makeup exam during the same week you return to class, as specified by the date on your doctor's note.
- **Zero Grades:** Failing to attend class on an exam day or failing to submit work by the deadline will result in a grade of zero.
- **No Redos:** Once an assignment or exam is submitted/completed, it cannot be redone or retaken under any circumstances.

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.

Generative AI Tools

Generative artificial intelligence tools—software that creates new text, computer code, and other content—have

become widely available. Well-known examples include ChatGPT, Copilot, and Gemini. This policy governs all such tools, including those released during our semester together.

Understanding how and when to use generative AI tools is quickly emerging as an important skill for future professions. To that end, you are welcome to use generative AI tools in this class as long as it aligns with the learning outcomes or goals associated with assignments. You are fully responsible for the information you submit based on a generative AI query (such that it does not violate academic honesty standards, intellectual property laws, or standards of non-public research you are conducting through coursework). Your use of generative AI tools must be properly documented and cited for any work submitted in this course.

You may use generative AI tools on assignments in this course, within the following limitations.

- Using it as a learning tool rather than copying and pasting.
- Note that all large language models still have a tendency to make up incorrect facts and fake citations, code generation models have a tendency to produce inaccurate outputs.
- You will be responsible for any inaccurate, biased, or unethical content you submit, regardless of whether it originally comes from you or a foundation model. If you use a foundation model, its contribution must be acknowledged in the handing; you will be penalized for using a foundation model without citing.
- The college's policy on plagiarism still applies to any uncited or improperly cited use of work by other human beings, or submission of work by other human beings as your own. If you do use generative AI tools on assignments in this class, you must properly document and credit the tools themselves. Cite the tool you used, following the pattern for computer software given in the specified style guide.
- If you choose to use generative AI tools, please remember that they are typically trained on limited datasets that may be out of date. Additionally, generative AI datasets are trained on pre-existing material, including copyrighted material; therefore, relying on a generative AI tool may result in plagiarism or copyright violations. Finally, keep in mind that the goal of generative AI tools is to produce content that seems to have been produced by a human, not to produce accurate or reliable content; therefore, relying on a generative AI tool may result in your submission of inaccurate content. It is your responsibility—not the tool's—to assure the quality, integrity, and accuracy of work you submit in any college course.
- Debugging code is an application where programmers, especially novices, could benefit from Generative artificial intelligence tools. Note that once a bug is pointed out, it is generally easy to verify, so the fact that the bot's answers might sometimes be wrong isn't as much of a concern.

To ensure all students have an equal opportunity to succeed and to preserve the integrity of the course, students are not permitted to submit text that is generated by artificial intelligence (AI) systems such as ChatGPT, Bing Chat, Claude, Google Bard, or any other automated assistance for any classwork or assessments. This includes using AI to generate answers to assignments, exams, or projects, or using AI to complete any other course-related tasks. Using AI in this way undermines your ability to develop critical thinking, writing, or research skills that are essential for this course and your academic success. Students may use AI as part of their research and preparation for assignments, or as a text editor, but text that is submitted must be written by the student. For example, students may use AI to generate ideas, questions, or summaries that they then revise, expand, or cite properly. Students should also be aware of the potential benefits and limitations of using AI as a tool for learning and research. AI systems can provide helpful information or suggestions, but they are not always reliable or accurate. Students should critically evaluate the sources, methods, and outputs of AI systems. Violations of this policy will be treated as academic misconduct. If you have any questions about this policy or if you are unsure whether a particular use of AI is acceptable, please do not hesitate to ask for clarification.

Instructor Course Information: Fall 2026

Time: Section 001: M/W 9:30 AM - 12:00 PM

Course Title: Programming Fundamentals 1

Instructor: Don Pathirage, Ph.D.

Room: Levelland Math Building 125B

Email: dpathirage@southplainscollege.edu

Office Hours: To be announced

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]**.

Academic Conduct: You may discuss the lab and programming assignments with your classmates, but you must code, debug, and execute the projects on your own. Copying of another student's work or allowing your work to be copied is considered plagiarism and a failing grade for that assignment will be given to all parties involved. Cell phones **MUST** be turned off and put away during class and testing periods. Calculators will **NOT** be allowed during exams.

Assignment Policy: Current assignments and due dates will be announced in the class. **Students are expected to read the current chapter before coming to class.** During the scheduled lab, there will be lab exercises to complete during the lab. (CodeLab assignments can be finished on your own time). All assignments will be given a Due Date.

All assignments will be given a Due Date. Assignments submitted after the deadline will incur a deduction of 20 points and will not be accepted beyond the subsequent week. **Lab attendance is required, and students are expected to stay for the full lab time. Leaving the lab before completing and submitting the assigned work will result in a grade of zero for the incomplete task.**

Your work schedule or any other schedule must not overlap with the class schedule.

Grading Policy: There will be 3 major exams and a comprehensive final. All exams **must** be taken in person. No student will be exempt from the final. Your lab grade will be calculated from CodeLab grades, in-class lab assignments, and programming assignments. Your final grade will be computed as follows:

Major Exams (3):	50%
Final Exam:	20%
Lab Grade:	30%

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 by 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 assigned as the exam grade.

All in-class programming labs must be demonstrated during face-to-face sessions. To receive credit, you must explain your code and answer any questions from your instructor.

Note: Your final grade is determined by the weighted criteria listed above. Please disregard the 'Total' percentage shown in Blackboard, as it may not accurately reflect the final weighting of all assignments.

COSC1436 - Fall 2026 Course Outline

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

Week Start date	Topics
1 Aug 24 - Aug 29	Introduction
	Sections 1.1, 1.2, 1.3, 1.4, 1.5
2 Aug 31 - Sep 05	Sections 2.1, 2.2, 2.3, 2.4, 2.5
	Sections 2.6, 2.7, 2.8, 2.9, 2.10
3 Sep 07 - Sep 12	Labor Day Holiday – All campuses closed
	Sections 2.11, 2.12, 2.13, 2.14, 2.15, 2.16, 2.17
4 Sep 14 - Sep 19	Sections 3.1, 3.2, 3.3, 3.4. Using AI as a Learning Tool
	Sections 3.5, 3.6, 3.7, 3.8, 3.9, 3.10
5 Sep 21 - Sep 26	Sections 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7. Ethics of AI (CodeLab 1: Due today)
	Sections 4.8, 4.9
6 Sep 28 - Oct 03	Exam 1 (in-person: Room M125) (CodeLab 2: Due today)
	Sections 4.10, 4.11, 4.12, 4.13
7 Oct 05 - Oct 10	Sections 4.14, 4.15, 5.1. AI-guided study
	Sections 5.2, 5.3, 5.4, 5.5 (CodeLab 3: Due Saturday)
8 Oct 12 - Oct 17	Sections 5.6, 5.7, 5.8, 5.9, 5.10
	Sections 5.11, 5.12 (CodeLab 4: Due Saturday)
9 Oct 19 - Oct 24	Sections 6.1, 6.2, 6.3, 6.4
	Sections 6.6, 6.7, 6.8, 6.9, 6.10
10 Oct 26 - Oct 31	Exam 2 (in-person – Room M125) (CodeLab 5: Due today)
	Sections 6.5, 6.13, 6.11, 6.12
11 Nov 02 - Nov 07	Sections 6.14, 6.15, 7.1, 7.2
	Sections 7.3, 7.4, 7.5, 7.6
12 Nov 09 - Nov 14	Sections 7.7, 7.8, 7.9 (CodeLab 6: Due today)
	Section 8.1
13 Nov 18 - Nov 21	Exam 3 (in-person - Room M125)
	Section 8.3 (CodeLab 7: Due today)
14 Nov 23 - Nov 28	Sections 11.1, 11.2, 11.3
	Thanksgiving Holiday
15 Nov 30 - Dec 05	Sections 11.4, 11.5, 11.6 (CodeLab 8: Due today)
	Section 11.7. 11.8
16 Dec 07 - Dec 12	Final Exam: December 9th (Wednesday) at 8:00 a.m.

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