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 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: https://www.turingscraft.com/

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 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 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 <u>may</u> 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.

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 the 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

Online Tutors
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

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.

Instructor Course Information: Spring 2026

Time: Section 001: M/W 9:30 AM - 12:00 PM (Mondays Face to Face, Wednesdays Online)
                Section 002: T/Th 1:00 PM - 3:30 PM (Tuesday Face to Face, Thursday Online)

Course Title: Programming Fundamentals 1
Instructor: Dr. Don Pathirage
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 3:30PM -5:00PM	12:00PM-1:00PM	12:00PM-1:00PM 3:45PM-5:00PM	12:00PM-1:30PM Or by appointment

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 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. (Do not display your screen to neighboring students for copying.) 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 have been listed on the last page of the syllabus. **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 have been given a Due Date.

Attendance during the scheduled in-person session is mandatory. During this class, you are required to present both the previous online lab and the current in-person lab for grading. Absence from the in-person session without a college-approved excuse letter will result in a grade of zero for both lab assignments.

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, and in-class lab assignments. Your final grade will be computed as follows:

> Major Exams (3): 55%
> Final Exam: 20%
> Lab Grade: 25%

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 your instructor as soon as possible by email. If permission is granted for a makeup exam, it has 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.

COSC1436 Spring 2026 Course Outline

Week Start date	Topics
1 Jan 13 - Jan 17	Introduction
	Sections 1.1, 1.2, 1.3, 1.4, 1.5
2 Jan 20 - Jan 24	Dr. Martin Luther King, Jr. Holiday - All campuses closed
	Sections 2.1, 2.2, 2.3, 2.4, 2.5
3 Jan 27 - Jan 31	Sections 2.6, 2.7, 2.8, 2.9, 2.10
	Sections 2.11, 2.12, 2.13, 2.14, 2.15, 2.16, 2.17
4 Feb 03 - Feb 07	Sections 3.1, 3.2, 3.3, 3.4
	Sections 3.5, 3.6, 3.7, 3.8, 3.9, 3.10
5 Feb 10 - Feb 14	Sections 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7 (CodeLab 1: Due today)
	Sections 4.8, 4.9
6 Feb 17 - Feb 21	**Exam 1** *(in-person: Room M125)* (CodeLab 2: Due today)
	Sections 4.10, 4.11, 4.12, 4.13
7 Feb 24 - Feb 28	Sections 4.14, 4.15, 5.1 (CodeLab 3: Due today)
	Sections 5.2, 5.3, 5.4, 5.5
8 Mar 03 - Mar 7	Sections 5.6, 5.7, 5.8, 5.9, 5.10 (CodeLab 4: Due today)
	Sections 5.11, 5.12
9 Mar 10 - Mar 14	Sections 6.1, 6.2, 6.3, 6.4
	Sections 6.6, 6.7, 6.8, 6.9, 6.10
10 Mar 17 - Mar 21	Spring Break - All campuses are closed
11 Mar 24 - Mar 28	**Exam 2** *(in-person – Room M125)* (CodeLab 5: Due today)
	Sections 6.5, 6.13, 6.11, 6.12
12 Mar 31 - Apr 04	Sections 6.14, 6.15, 7.1, 7.2
	Sections 7.3, 7.4, 7.5, 7.6
13 Apr 07 - Apr 11	Sections 7.7, 7.8, 7.9 (CodeLab 6: Due today)
	Section 8.1
14 Apr 14 - Apr 18	**Exam 3 (in-person - Room M125)**
	Section 8.3 (CodeLab 7: Due today)
15 Apr 21 - Apr 25	Sections 11.1, 11.2, 11.3
	Sections 11.4, 11.5, 11.6
16 Apr 28 - May 02	Section 11.7. 11.8 (CodeLab 8: Due today)
17 May 05 - May 09	**Final Exam: Section 001 - May 6th (Wednesday) at 8:00 a.m.** **Final Exam: Section 002 - May 7th (Thursday) at 10:15 a.m.**

Missing any listed due dates or failing to attend class on the scheduled exam date,
as defined in the syllabus, will result in a grade of zero for the missed work