



Course Syllabus
Introduction to Programming – CMP4201
Fall 2021

Instructor: Ms. Susie Cunningham
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Office: Elliott 007
Classrooms: BU215 & BU219

Office Hours:

Mondays: Noon – 2:00 p.m. (in Elliott 007)
8:00 p.m. – 10:00 p.m. (Via Zoom)

Tuesdays: Noon – 1:00 p.m. (in Elliott 007)
3:00 – 4:00 p.m. (in BU215)

Wednesdays: Noon – 2:00 p.m. (in Elliott 007)

Fridays: Noon – 2:00 p.m. (in Elliott 007)

Other times for Office Hours may be arranged by appointment.
Can also email me at any time.

Description:

This course is an **introduction to computer programming**. This course is designed for students with **little or no previous programming experience**. Students will learn to program using a top-down design, structured, and object-oriented approach. Topics will include using basic variables, loops, if/else statements, strings, arrays, functions, basic input/output files, pointers, structures, and objects. Students will program their own header files.

Text:

Gaddis, Tony. "C++ from Control Structures through Objects." Pearson, 2017.

Course Methodology:

Course methodology will include **hands-on activities, lectures, outside readings, classroom discussion, and programming projects.**

Student Evaluation:

There will be **3 tests, 11 homework assignments/group programming projects, and a major final project.**

For more practice: Students will be completing SoloLearn Modules

Students receiving SoloLearn Certificate for C++ will receive +10 extra credit points.

Method of Grading:

Grades will be based on a point system.

	<u>Points</u>
Tests 1 – 3	300
Final Project	100
Homework Assignments	<u>105</u>
Total Points	505

Students receiving SoloLearn Certificate for C++ at the end of the semester will receive +10 extra credit points.

Accumulated totals are then distributed into letter grades as follows:

A	(93% - 100%)
A-	(90% - 92.9%)
B+	(87% - 89.9%)
B	(84% - 86.9%)
B-	(80% - 83.9%)
C+	(77% - 79.9%)
C	(73% - 76.9%)
C-	(70% - 72.9%)
D*	(69% and below)

Classroom Policies:

Homework Assignments: Homework assignments must be **turned in by the due date**. Assignments may be turned in earlier than the due date. **Any late homework will result in a reduced grade. (25% off for each day late.) Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday all count as days. A timeframe for a day constitutes from 12:01 a.m. – Midnight.**

Absence prior to due Date: Missing class (excused or not) prior to a test, or other due dates for homework assignments does not exempt the student from preparing and taking the test and/or submitting the required homework assignment on the due date. Exceptions may be granted in advance of class time and must be discussed with the instructor.

Tardiness: Students arriving more than 5 minutes late to class are marked tardy. Students arriving 20+ minutes late will be marked absent. **A student sleeping in class will be counted as an absence.**

Academic Dishonesty: (Refer to the Indiana Academy Handbook.)

In the event, a student turns in a computer program for a homework assignment or test that was not originally written by the student, the homework or test will fall under the category of plagiarism. This will be considered a **serious offense**. Students will be allowed to ask for help from other students if they are working on a preannounce group project or the student needs assistance finding a syntax error or minor errors.

If a student does use code in a programming homework assignment or project that was obtained from the Internet, another programming source, or writing code that is similar in nature, the student **must put in a comment in the computer program with the source of where the code was obtained, otherwise this will be considered under the category of plagiarism.**

Furthermore, if a student writes a computer program for another student, the student “knowingly permitting one’s work to be submitted by another person as if it were the submitter’s original work” will also be penalized.

Penalties will be assessed in accordance to the Indiana Academy Handbook.

Communication:

The best way to communicate with me is through email at scunningham@bsu.edu. My phone dings when I receive an email and I can answer back via email through my phone. Generally, I do answer back almost immediately during work hours (unless I am teaching a course or on my way to class). I will always respond back within 24 hours. (This does include the weekends.) Generally, I am more available late at night. Office hours will be posted

Diversity and Inclusion:

Ball State University aspires to be a university that attracts and retains a diverse faculty, staff, and student body. We are committed to ensuring that all members of the community are welcome, through valuing the various experiences and worldviews represented at Ball State and among those we serve. We promote a culture of respect and civil discourse as expressed in our Beneficence Pledge and through university resources found at <http://cms.bsu.edu/campuslife/multiculturalcenter>.

Accommodations:

If you need course adaptations or accommodations because of a disability, please contact me as soon as possible. Ball State's Disability Services office coordinates services for students with disabilities; documentation of a disability needs to be on file in that office before any accommodations can be provided. Disability Services can be contacted at 765-285-5293 or dsd@bsu.edu.

Canvas Accessibility:

Canvas provides a user experience that is easy, simple, and intuitive. Special attention has been paid to making Canvas screen-readable. The Rich Content Editor encourages users to create accessible content pages (i.e. text formatting is accomplished using styles). Canvas is designed to allow limited customization of colors and schemes to be accessible for all users. The National Federation of the Blind granted Canvas the Gold Level Web Certification in 2010.

Find more information by visiting the Canvas Voluntary Product Accessibility Template (VPAT) .
<https://community.canvaslms.com/t5/Accessibility/Accessibility-within-Canvas/ba-p/261501>

Indiana Academy Mask Policy:

The Indiana Academy will follow [Ball State University's mask policy](#) (see Section IV). Based on current CDC guidance recommending the wearing of face masks for all people—regardless of vaccination status—in public indoor settings in communities where the rate of coronavirus transmission is high or substantial, all employees, students, and campus visitors are required to wear a mask while inside any University building. This requirement is effective on August 9, 2021. Fully vaccinated people are not required to wear masks outdoors.

Individuals who are not fully vaccinated for COVID-19 are required to wear face masks while inside campus buildings and outside when physical distancing cannot be maintained.

If a student declines to wear a face mask as required, the student will be referred to the Director of Academic Affairs or the Director of Residential Affairs. If the situation occurs in a classroom or other academic setting, it is considered a classroom management issue, and the teacher will remind the student of the requirement and give the student a chance to comply with it prior to referring the matter to the Director of Academic Affairs or the Director of Residential Affairs. Wearing masks is crucial to preventing the spread of COVID-19 to others.

Class Participation: Unless instructed otherwise, students need to be working on items relating to the classroom homework/topic during the class time.



Tentative Class Activity and Assignments

C++ Programming – CMP4201

Week of August 16, 2021:

Students will learn about basics of computer programming.

An introduction to information-based systems and the history of computers will be presented.

Students will begin to work with data on a binary level and will convert data to an ASCII and EBCDIC format.

HW #1 (10 pts.) will be due on August 20, 2021 by 11:59 p.m. (Binary Homework)

Reading Homework Assignment: Chapter #1

Week of August 23, 2021:

Students will learn how to use variables, constants, use math operations and how to accept input from a keyboard.

Students will actually begin programming basic commands.

HW #2 (5 pts.) will be due on August 25, 2021 by 11:59 p.m. (ASCII Art Homework)

Reading Homework Assignment: Chapters #2 & #3

SoloLearn Modules: Basics

Week of August 30, 2021:

Students will be introduced to if/else statements and logical operators.

HW #3 (5 pts.) will be due August 30, 2021 by 11:59 p.m. (MadLib homework)

HW #4 (10 pts.) will be due on September 3, 2021 by 11:59 p.m. (Guessing Game Homework)

Reading Homework Assignment: Chapter #4

SoloLearn Modules: Conditionals

Week of September 6, 2021:

Extended Break – September 4th – 7th

Students will be introduced to switch statements and loops.

HW #5 (10 pts.) will due on September 10, 2021 by 11:59 p.m. (Loop Homework)

Reading Homework Assignment: Chapter #5

SoloLearn Modules: Loops

Week of September 13, 2021:

Students will be introduced to writing and reading from a file.

Students will be introduced to how information is stored on a hard drive and in memory. Pointers will be used to demonstrate this concept.

HW #6 (10 pts.) will be due on September 17, 2021 by 11:59 p.m. (Planet Homework)

Reading Homework Assignment: Chapter #12

Week of September 20, 2021:

September 20th - Will review class material.

Test #1 (Multiple choice and short answer/100 pts.) – September 22, 2021.

Students will be introduced to working with and manipulating strings.

Reading Homework Assignment: Chapter #10

SoloLearn Modules: Data Types, Arrays, and Pointers (up to Lesson 30)

Week of September 27 and October 4, 2021:

HW #7 (10 pts.) will be due on September 27, 2021 by 11:59 p.m. (PigLatin Homework)

Students will be introduced to the concept of functions. Students will learn how to use functions with passing parameters by value, by reference, by arrays, using a return statement, and global variables.

HW #8 (10 pts.) will be due on October 4, 2021. (Dice program using functions.)

HW #9 (10 pts.) will be due on October 7, 2021. (RPG program using functions.)

Reading Homework Assignment: Chapter #6 & #9

SoloLearn Modules: Functions

Week of October 11, 2021:

Fall Break: October 9th – 12th

Will review the class material on October 13th.

Test #2 (Multiple choice and short answer/100 pts.) – October 15th.

Week of October 18, 2021:

Students will be introduced to OOP (Object Oriented Programming)

Students will write and use their own header files.

HW #10 (10 pts.) will be due on October 22, 2021 by 11:59 p.m. (Pet homework assignment)

Reading Homework Assignment: Chapter #13

SoloLearn Modules: Classes and More on Classes

Week of October 25, 2021:

Students will learn about arrays and multi-dimensional arrays.

HW #11 (10 pts.) will be due on 29, 2021 by 11:59 p.m. (Maneuver around 2-dimensional homework assignment)

Reading Homework Assignment: Chapter #7

SoloLearn Modules: Data Types, Arrays, Pointers (Lesson 30+)

Week of November 1, 2021:

Will review the class material.

Test #3 (Multiple choice and short answer/100 pts.) – November 3, 2021

Students will begin work on their final programming projects.

Weeks of November 8th, November 15th, and November 29th 2021:

Students will work on final programming projects.

SoloLearn Modules: Finish the rest of the modules. Turn in SoloLearn Certificate for C++. Earn +10 extra credit points.

Week of December 6, 2021:

Final Programming project for class will be presented starting on the week of December 6, 2021.

(100 pts.)

All projects are due by December 6, 2021!! (by 11:59 p.m.)