

Principles of Computer Programming I – CSCI 1301

Fall 2020

Last update: November 23, 2020

Quick Facts

- *All the information in this syllabus is subject to change, especially regarding the schedule and evaluation.*
- Class meets in [Algood Hall E-152](#),
 - Tuesday (group A) 10:00–11:15 AM,
 - Thursday (group B) 10:00–11:15 AM,
- Lab. meets
 - Tuesday or Thursday 11:30–12:20 AM in [Algood Hall N-344](#),
 - Tuesday or Thursday 01:00–01:50 PM in [Algood Hall E-365](#).
- The instructor's contact and office hours are at spots.augusta.edu/caubert/#contact, you can also join the [Discord server](#) set-up by our Undergraduate Teaching Assistant, Crystal Anderson or our group on Teams.
- You can [download this syllabus](#), but make sure you check spots.augusta.edu/caubert/pcp/ periodically.
- For the detail of the planning and evaluations, refer to [the planned schedule](#).
- For specific information about returning to campus, please [refer to the JagWire](#) for a useful list of resources.

1 Presentation

1.1 Factual

This is Principles of Comp Program I - 13167 - CSCI 1301 - A and Principles of Comp Program I - 13172 - CSCI 1301 - B, an undergraduate semester class of 4.000 credits, whose pre-requisite is a minimum grade of C in one of the following classes:

- MATH 1101,
- MATH 1111,
- MATH 1113,
- MATH 1220,
- MATH 2011,
- MATH 1001.

We will be using an asynchronous split model:

- Lecture notes, lab, homework and assignments will be shared weekly at spots.augusta.edu/caubert/pcp/,
- Every student will have access to at least one class meeting and one lab meeting every week,

- Attendance will not be mandatory, but **strongly encouraged**, and lab will *not* be graded,
- The Tuesday and the Thursday classes will have the same content, delivered at a fast rate, as the goal will be to cover one week of material in one session,
- Remote help will be offered by your instructor—Dr. Aubert—and your undergraduate teaching assistant—Crystal Anderson—synchronously during lab, and asynchronously through email, teams, and a discord server hosted by Crystal,
- All the evaluations (quizzes, exams and final) except for the project will take place in-person, during class time, and results will be posted on D2L,
- Projects will be carried out at home, individually, and Crystal will not be allowed to help you completing them.

We will enforce the University's [regulations on social distancing and face covering](#). We will be primarily using [material that I will be sharing with you](#), that you will be able to download for off-line consulting in multiple formats. You will either need

- a computer with admin rights to install software such as Visual Studio,
- a computer with an internet access,
- to access one of the [computer lab](#).

1.2 Course Description

A rigorous study of the principles of computer programming with emphasis on problem solving methods which result in correct, well-structured programs. Other topics: an introduction to data representation, data types and control structures, functions, and structured data types.

1.3 Learning Outcomes

Students who successfully complete this course should:

1. Perform standard program Input and program Output using the keyboard and the monitor.
2. Declare and use user-defined variables, and constants using the appropriate data types.
3. Declare, define, and call user-defined functions.
4. Write and evaluate expressions using arithmetic, relational and logical operators.
5. Control the flow of program execution using the appropriate sequential, selection, and repetition statements.
6. Define, create and manipulate arrays.
7. Process lists of values – defining, creating, traversing.
8. Understand and implement classes and objects.

2 Planned Course Schedule

The week starts on *Monday*.

Week	Date	Note	Topic
1	08/10	-	Syllabus, Introduction
2	08/17	-	Reserved Words and Variables
3	08/24	08/25 : Quiz (A) , 08/27 : Quiz (B)	Datatypes and Operations
4	08/31	-	Casting and Reading from the User
5	09/07	09/07: <i>Labor Day</i> , 09/10: Project (A & B)	Intro to Object-Oriented Language
6	09/14	09/17: Midterm Exam (B)	Advanced Methods / Exam
7	09/21	09/22: Midterm Exam (A)	Exam / Advanced Methods
8	09/28	-	Constructors, Overloading and ToString
9	10/05	10/06: Quiz (A) , 10/08: Quiz (B)	Control Structures – Boolean and if Statements
10	10/12	-	switch Statements
11	10/19	10/22: Quiz (B)	while Statements
12	10/26	10/27: Quiz (A)	for Statements
13	11/02	11/03: Exam (A) , 11/05: Exam (B)	-
14	11/09	-	Arrays
15	11/16	11/20: Project (A & B)	-
16	11/23	11/23–27: <i>Thanksgiving</i>	-
17	11/30	12/8 (11:00AM–1:00PM): Final	-

3 Additional Material and Resources

3.1 Class Material

3.1.1 Week 1

Ressource	pdf	html	docx	Comment
Lecture notes	Syllabus	Syllabus		Simply read the syllabus!
Lab	Lab #1	Lab #1	Lab #1	Setting-up your computer

3.1.2 Week 2

Ressource	pdf	html	docx	Comment
Lecture notes	Class #2	Class #2	Class #2	Introduction, first program(s) and escape sequences
Lab	Lab #2	Lab 02	Lab 02	Creating your own solution, first messages
Homework	Homework #1			Study it before the first quiz, on 08/25 (A), 08/27 (B)

3.1.3 Week 3

Ressource	pdf	html	docx	Comment
Lecture notes	Class #3	Class #3	Class #3	Datatypes and variables
Lab	Lab #3	Lab 03	Lab 03	First variable manipulations
Homework	Homework #2			Study it before the Midterm exam
Datatypes in C#	Cheatsheet	Cheatsheet	Cheatsheet	A brief cheatsheet on C#'s datatypes

3.1.4 Week 4

Ressource	pdf	html	docx	Comment
Lecture notes	Class #4	Class #4	Class #4	Operations, conversions and reading from a user
Lab	Lab #4	Lab 04	Lab 04	Reading from the user, operations on numbers, casting
Project 1	Project #1	Project #1	Project #1	To be completed before 09/10

3.1.5 Week 5

Ressource	pdf	html	docx	Comment
Lecture notes	Class #5	Class #5	Class #5	Converting a string into an int, first class
Lab	Lab #5	Lab 05	Lab 05	Reading an int from the user, using a pre-defined class
Milestone 1	Milestone #1	Milestone #1	Milestone #1	A brief review of what happened so far

3.1.6 Week 6

Ressource	pdf	html	docx	Comment
Lecture notes	Class #6	Class #6	Class #6	UML Diagrams, More on the Rectangle class, Scope, Constants and Format Specifiers
Lab	Lab #6	Lab 06	Lab 06	Designing and implementing classes from scratch.
Homework	Homework #3			Study it before the Midterm exam!
Project 1 Solution	Project #1	Project #1	Project #1	A possible solution to the first project, and the rubric.

3.1.7 Week 7

Ressource	pdf	html	docx	Comment
Exam	Exam #1	Exam #1	Exam #1	Some comments on the first exam, and the exams for both sections A and B available to download.

3.1.8 Week 8

Ressource	pdf	html	docx	Comment
Lecture notes	Class #8	Class #8	Class #8	Constructor, Default values, Signature, Overloading and ToString method.
Lab	Lab #8	Lab 08	Lab 08	Designing and implementing classes using custom constructors and ToString methods.

3.1.9 Week 9

Ressource	pdf	html	docx	Comment
Lecture notes	Class #9	Class #9	Class #9	Controlling the flow of a program using conditions and if-else statements.
Lab	Lab #9	Lab 09	Lab 09	Practising with bool and if statements, first problems.
Milestone 2	Milestone #2	Milestone #2	Milestone #2	Reviewing classes.
Homework	Homework #4			Homework on conditions, if and switch.

3.1.10 Week 10

Ressource	pdf	html	docx	Comment
Lecture notes	Class #10	Class #10	Class #10	if-else-if and switch statements.
Lab	Lab #10	Lab 10	Lab 10	From if to switch and reciprocally.
Quiz 2		Quiz #2		Solution and comments on Quiz #2

3.1.11 Week 11

Ressource	pdf	html	docx	Comment
Lecture notes	Class #11	Class #11	Class #11	Increment, Decrement, while loops and user-input verification.

Ressource	pdf	html	docx	Comment
Lab	Lab #11	Lab 11	Lab 11	–
Homework 4's solution		Homework #4's solution		Solution and comments on the first part of Homework #4
Homework 5		Homework #5		Homework on switch, increment, decrement, loops and user-input validation.

3.1.12 Week 12

Ressource	pdf	html	docx	Comment
Lecture notes	Class #12	Class #12	Class #12	do ... while loop and survey.
Lab	Lab #12	Lab 12	Lab 12	Survey code and example of exam.
Quiz 3	Quiz #3	Quiz #3	Quiz #3	Solution and comments on Quiz #3

3.1.13 Week 13

Ressource	pdf	html	docx	Comment
Exam	Exam #2	Exam #2	Exam #2	Some comments on the second exam, and the exams for both sections A and B available to download.

3.1.14 Week 14

Ressource	pdf	html	docx	Comment
Lecture notes	Class #14	Class #14	Class #14	Arrays and for loops
Lab	Lab #14	Lab 14	Lab 14	Discovering and practicing with arrays and for loops.
Project 2	Project #2	Project #2	Project #2	To be completed before 11/20
Homework 5's solution		Homework #5's solution		Solution and comments on the first part of Homework #5
Homework 6		Homework #6		Homework on for loops and arrays.

3.1.15 Week 15

Ressource	pdf	html	docx	Comment
Lecture notes	Class #15	Class #15	Class #15	Static and Arrays Algorithms
Lab	Lab #15	Lab 15	Lab 15	Array, for loops, and exam preparation.
Homework 6's solution		Homework #6		Solution and comments on the first part of Homework #5

3.1.16 Week 16

Ressource	pdf	html	docx	Comment
Project 2's solution	-	Project #2	-	Please study the 4 solutions

3.2 Textbook

Textbook is optional, and can be accessed at <https://learning.oreilly.com/library/view/visual-c-how/9780134628820/> for Augusta University students, once you've created an account on <https://www.oreilly.com/> with your @augusta.edu email address.

Visual C# How to Program (6th Edition) by Paul J. Deitel and Harvey Deitel, Pearson, 2016, ISBN-10: 0134601548

This book can be purchased through [JagStore](#), select

- JAGSTORE - 2020 FALL-AUGUSTA UNIVERSITY
- CSCI-CSCI
- * 1301
- F-Xiang, Weiming

If you were to pick the 5th Edition, be aware of that the 6th edition takes into account the [recent 6th specification of C#](#). As a consequence, it uses [string interpolation](#) instead of comma-separated list, it simplifies the use of the `Tostring` method, and that it uses a different method to convert `String` to `Integers`.

3.3 Online Resources

- Code examples from the textbook
- Dr. Michael Dowell—who teaches CSCI 1302–Principles of Computer Programming II—lists some interesting resources for C#.
- [Reese Library's Cyber Resource Center](#)
- You can compile really simple C# projects online at tutorialspoint.com/compile_csharp_online.php or repl.it.
- All the shortcuts for all the versions of Visual Studio are listed at <http://visualstudioshortcuts.com/>.

4 Grades

Students will be evaluated using four different types of evaluation:

1. Homework assignments will be given during the course of the semester: they are not expected to be handed back, and won't be graded, but quizzes with questions taken or inspired from those assignments will be given. Those quizzes are closed book and timed (± 10 min.).
2. Projects will be carried at home. "Partial feedback" will be possible, and encouraged: the students are allowed to submit their work as many times as they want before the dead-line, and to get feedback on it from their instructor, Dr. Aubert.
3. There will be in-class exams, held during the regular class periods.
4. The final exam will take place during the [exam period](#).

Refer to the [planned schedule](#) for precise dates, and to [Brightspace/D2L](#) to get your current grades.

Your grade will be computed as follows:

Quizzes ($\times 3$)	10%
Project ($\times 2$)	10%
In-class Exams ($\times 2$)	40%
Final Exam	40%

using the following course grade scale:

Below 65	65–70	70–79	80–89	90–100
F	D	C	B	A

Refer to the [Course Requirements](#) for information about late or missed evaluations.

5 Format, Teaching Philosophy & Requirements

5.1 Format and Procedures

Lectures are devoted to general explanations of the concepts and ideas underlying the topic at stake. All practical work, coding, programming, testing, etc. will be carried at home or in the lab portion if there is one.

Homework assignments will assist the students in making sure they understand classes expectations and the content of the lecture, as well as to practice their coding and problem-solving skills. The progression of the students will be regularly tested and assessed through quizzes and exams. Active and relevant participation during the lectures is appreciated.

5.2 Teaching Philosophy

It is our mutual interest for you to succeed: I love to share knowledge and to expand it by helping students, and students want to gain a useful and agreeable experience that will prove valuable in their future endeavors. To this end, here is:

5.2.1 What I'm expecting from you

- Check periodically your email account and read the email I send.
- Read this entire syllabus carefully.
- Participate actively in all class discussions.
- Do the homework wisely: read your notes before starting the homework assignment, make sure you understand it completely before considering it done.
- Come prepared and on time to classes, exams and quizzes.

5.2.2 What you should expect from me:

- Clear and accessible lectures.
- Fair and impartial grading.
- Availability, during office hours, by appointment, and by email.
- Open hear to your suggestions to improve this class.
- Commitment to the principles of [universal design](#).
- Dedication to your success!

You can have a look at my [Quick Reflexion on Course Evaluations](#), that contains my previous student evaluations, and at my [“Definitive” Study Guide](#).

5.3 Course Requirements

- Attendance is not mandatory. However, if you come to class, come on time, and stay until the end of the lecture: late arrival and early departure disturb the learning experience for everyone.
- No laptop or similar electronic device is allowed during the lectures. This policy will help you to [improve your grades, increase memorization and to be more respectful of your fellow students](#).
- You are responsible for all course material, whether or not you attend lectures or do the assigned reading or coursework.
- It is the student's responsibility to [initiate a withdrawal](#) before [midterm](#), but I [reserve the right to withdraw](#) a student that missed too many meetings, or is performing poorly, after being given two chances to explain themselves.
- A student not withdrawn from a course who stops attending class (or who never attends class) is subject to receiving a grade of **WF** or **F**.
- All coursework is individual coursework.
- Any student missing the final exam without an documented excuse (brought to our undergraduate study director [Anthony Lawrence](#) or to [the dean of Student Life](#)) or who has not taken action to withdraw will receive a grade of **F**. In case of an documented emergency at the time of the final, the student may be allowed to receive a grade of **I**.
- No make up quizzes or exam will be allowed. In case of a documented excuse (cf. previous item), the instructor may offer to place the weight of the missed exam or quiz onto the final's weight.

In case of conflict, the proper etiquette is to reach out to me, and if no solution can be found, then we should turn to our undergraduate study director [Anthony Lawrence](#) or to [the dean of Student Life](#) to help as an ombudsman.

6 Practical Information

6.1 Lab Space

For this class, you will need to access a computer. You can either:

- Visit one of the [Computer Labs](#),
- Use your personal computer.

If you need room to engage in a synchronous class, you can go to

- The [University Hall \(UH\)](#) lounges on the 2nd and 3rd floor,
- The [Academic Success Center](#) UH156, including UH157 and UH160,
- The Butler room in the [Jaguar Student Activities Center \(JSAC\)](#) from 10AM to 3OM

6.2 Getting Help

I should be your first point of contact for any question regarding the content of this class, but many other resources are available:

- If you are food insecure, [you are not alone](#), and the [Open Paws Food Pantry](#) will help you.
- For tutoring resources, consult the [Academic Success Center](#) (or “ASC”). It can help you, among other things, in the areas of time management, test preparation and study strategies.
- The [Testing & Disability Services](#) (or “TDS”) can help you—and me!—accommodate this class.
- The [Student Counseling & Psychological Services](#) (or “SCAPS”) is here to assist students with a variety of personal, developmental, and mental health concerns.
- The [Writing Center](#) can help you with any written, oral, or multimedia project.
- To get help with technologies, refer to our [Instructional Technology Support](#) correspondent Sienna Sewell, whose contact can be found [on the Continuity webpage](#).

6.3 ACM Club

The [Augusta University chapter](#) of the [A.C.M](#) is one of the university’s best resources for Computer Science, Information Technology and Cyber Security students. It provides a platform to network with other students in similar majors; presenting countless opportunities to expand not only the people you know, but also a fantastic place to learn and ask questions. Because of Covid-19, we will only be holding meetings virtually in [our Discord server](#). If you are interested in joining these meetings, or you have any questions about Computer Science or Cyber Security, feel free to join through our link.

6.4 Covid

The University has implemented specific requirements to minimize exposure to COVID-19 and support the safety of all during the pandemic. These requirements apply to all persons on campus (faculty, staff, students, and visitors). These requirements are subject to change. Visit jagwire.augusta.edu/coronavirus/ and augusta.edu/reopening/ for the latest details.

6.4.1 Face Coverings

All persons must wear an appropriate face covering while inside campus facilities/buildings, including classrooms, regardless of the size of the space. The face covering must fit closely and fully cover the nose and mouth. Such coverings must be used in addition to—not as a substitute for—social distancing. If a medical condition prevents you from wearing a face covering, you may provide documentation to request an accommodation through Testing and Disability Services (706-737-1469 or tds@augusta.edu), and must show proof of the accommodation when asked.

6.4.2 Social Distancing

All persons must maintain at least six (6) feet of separation from others. This distance should be maintained at all times and in all spaces, indoors or out, including classrooms, except where closer proximity is brief and logistically unavoidable (e.g. elevators, hallways). Keep your distance, do not gather in groups, and avoid crowded spaces. Sit only in designated areas in classrooms or similar spaces, and do not move seats or desks in classrooms or common spaces.

6.4.3 Proper Hygiene

All persons should wash hands thoroughly and often with soap and water (for at least 20 seconds) or hand sanitizer (containing at least 60% ethanol or 70% isopropanol). Avoid direct contact with high touch surfaces (doorknobs, light switches, campus equipment, devices, vending machines, etc.) and avoid sharing devices, books, pens, or other learning aids with others.

6.4.4 Personal Disinfection Supplies

All persons are responsible for disinfecting their own workspaces before and after use, including desktops, seats, and any shared equipment. Students, faculty, and staff are responsible for providing their own supplies for this purpose. Used supplies should be disposed of properly.

If you notice an empty hand sanitizer dispenser, or a missing disinfectant spray bottles, you can call **706-721-5024** to replace COVID prevention items.

6.4.5 COVID-19 Reporting

Your role is critical to protect the safety of our entire AU family. Any student who is exhibiting symptoms of COVID-19 may be required to leave class and seek medical attention at Student Health Services (at 706-721-3448) immediately. Do not come on to campus if you have any symptoms of COVID-19.

6.4.6 Where to Go for More Information About COVID-19?

- Augusta University COVID-19 resources
 - Campus Reopening: augusta.edu/reopening/
 - Welcome Back information for students: augusta.edu/welcome-back/
 - COVID-19 resources on Jagwire jagwire.augusta.edu/coronavirus/
 - Frequently Asked Questions for students: my.augusta.edu/reopening/faq
 - Guidance on symptoms and getting tested
 - Free virtual screenings: augustahealth.org/covid-19
 - AU Health System COVID-19 Hotline: 706-721-1852
 - Student Health Clinic: 706-721-3448 or augusta.edu/shs/
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7 Legal and Recommendations

7.1 Academic Integrity

The University's [Student Code of Conduct](#), the [student's manual](#), the [academic regulations](#) as well as the [applicable policies](#) are supposed to be known by the students and will be enforced.

Section 5.2, Academic Conduct of the [student's manual](#) defines precisely what kind of collaborations are acceptable. As long as you don't lie, cheat, plagiarize, assist others or being assisted by others without authorization, we should not need any of that. If you are unsure about whether or not certain kinds of collaboration are permissible, please ask me.

7.2 Universal Design

I am committed to the founding principles of [Universal Design](#), and to make [my lecture accessible to every one](#). Concretely, that means that I'm not requiring you to use a particular Operating System, that I always try to give the information repeatedly, and using multiple channels, that I am available over the phone, email, or in my office. If you are registered with [Testing and Disability Services](#), please see me at your earlier convenience to discuss accommodations.

7.3 Campus Carry Legislation

Please be aware of the [USG guidance on House Bill 280](#). Note that you **may not** carry a handgun if high school students are enrolled in the class, and that it is your responsibility to visit the registrar to determine whenever this is the case or not.

8 Miscellaneous

- Reservation of rights: I reserve the right to change this syllabus without limitation and without prior notice. If I do substantially modify any item or policy, I will notify you during a lecture, or send an e-mail to your augusta.edu e-mail account.
- Download a [pdf version](#) of this page.
- Contact: caubert@augusta.edu and spots.augusta.edu/caubert/#contact
- Created with [debian](#), [pandoc](#) and [latex](#).
- All my documents are under [Creative Commons Attribution 4.0 International License](#). Sources are available upon motivated request.
- You will need a pdf reader to consult some of the documents: I recommend choosing [an open-source pdf reader](#).