Principles of Computer Programming I – CSCI 1301

Fall 2019

Quick Facts

- Class meets MWF 9:00–9:50 AM in Algood Hall N-126.
- Lab. meets WF 10:00–10:50 AM (Section E) and 11:00–11:50 AM (Section F) in Algood Hall E-365.
- The instructor's contact and office hours are at http://spots.augusta.edu/caubert/#contact.
- You can download this syllabus.
- For the detail of the planning and evaluations, refer to the planned schedule.

Quick Links

Laboratory • Homework • Shared Documents • Planned schedule • Getting help

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1 Presentation

1.1 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.

1.2 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.

1.3 Format and Procedures

This course has a lecture, and a laboratory, portion: both are required to succeed. This class is an on-campus class. Lectures are devoted to general explanations of the concepts and ideas underlying the topic at stake. Laboratory will be devoted to hands-on practise and experiments.

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, projects and tests. Active and relevant participation during the lectures and laboratory sessions is appreciated.

1.4 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:

1.4.1 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.

1.4.2 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!

1.5 Course Requirements

The following rules, inspired by my experience and dictated by the size of our group, will be enforced:

1.5.1 General Rules

- 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 classes or lab, or is performing poorly.
- 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 me 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 weight of the missed exam or quiz can be placed onto the final's weight.
- Come to your section's laboratory. If you want to change your section, find a fellow student willing to switch with you and go to the registrar's office.
- Late arrival and early departure are tolerated in lab, but do not expect me to go over instructions a second time for you, and do not disturb your fellow students with your questions.
- Quiet chat and mutual help are acceptable, sharing solutions is forbidden. If you are unsure whenever a collaboration is allowed or not, assume that it is forbidden and ask confirmation. Know that, for instance,
    - Is allowed:
        * Discussing general strategies and approaches without taking down notes,
        * Helping a fellow student debugging a program *by asking questions* ("*Don't you think there might be a problem line X?*").
    - Is forbidden:
        * Touching someone's else keyboard or taking notes while talking,
        * Sharing files or projects.

2 Practical Information

2.1 Lab Space

For this class, you will need to access a computer with Visual Studio installed on it. You can either:

- Visit one of the Computer Labs that are accessible to every student,
- Use the lab reserved for students enrolled in a CSCI / AIST / MS-IMS class, in University Hall, room 131,
- Use your personnal computer. Instructions on how to install and configure the softwares will be given during lab.

2.2 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 Academic Success Center (or "ASC").
- 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.

Tutoring is available for Computer Science in the Academic Success Center on the first floor of University Hall,

- Monday: 10:00 AM-12:00AM and 3:00PM-5:00PM
- Wednesday: 1:00 PM-3:00 PM
- Thursday: 1:00 PM-3:00 PM
- Friday: 3:00 PM-5:00 PM

The planning can also be downloaded.

You can also schedule appointments at https://augusta.campus.eab.com/. Assya Sellak will be our "embedded tutor" this semester.

2.3 ACM Club

There is an A.C.M club at Augusta University.

It is the ideal place to get to meet fellow students, to work on exciting projects, and to learn more about various aspects of Computer Science and Information Technology.

2.4 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 (closed book and timed ($\pm$ 10 min.)) with questions taken or inspired from those assignments and the lab will be given.

2. Projects will be carried at home or during laboratory.

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.

Your grade will be computed as follows:

Quizzes ($\times 4$)	10%
Projects ($\times 3$)	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**

2.5 Planned Course Schedule

The weeks start on *Monday.*

Week	Date	Note	Topic
1	08/12	-	Syllabus, Introduction
2	08/19	08/23 : **Quiz**	Reserved Words and Variables
3	08/26	-	Datatypes, Operations, and Reading from the User
4	09/02	*09/02: Labor Day*, 09/06: **Quiz**	Intro to Object-Oriented Language
5	09/09	09/13: **Project**	-
6	09/16	09/20: **Exam**	Review Session
7	09/23	-	Control Structures – Boolean, `if` Statements
8	09/30	10/04: **Quiz**	`switch` Statement
9	10/07	*10/07: Midterm, 10/10–11: Student Fall Pause*	`while` and `do while` Statements, `TryParse`
10	10/14	-	Continued
11	10/21	10/25: **Project**	`static` members
12	10/28	11/01: **Exam**	Review Session
13	11/04	-	`for` Statements
14	11/11	11/15: **Quiz**	Arrays
15	11/18	11/22: **Project**	-
16	11/25	*11/27–28: Thanksgiving*	-
17	12/02	*12/04: end of class*	Wrapping up
18	12/09	12/12 (8–10AM): **Final**	-

This schedule is subject to change and enhancements, but provide an indication of the pace, assignments, and major deadlines that you will need to plan for the semester.

3 Additional Material and Resources

3.1 Textbook

Textbook is optional, and can be accessed *for free* at https://www.safaribooksonline.com/library/view/visual-c-how/9780134628820/ for Augusta University students. You should log-in using https://www.oreilly.com/library/view/academic-access/.

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

It can be purchased through JagStore, select

- JAGSTORE – 2019 FALL–AUGUSTA UNIVERSITY
  - CSCI-CSCI
    * 1301
      · C-Rusch, Neea K.

(All the sections use the same textbook.) If you want to compare the price, go to https://uaugusta.verbaco mpare.com/.

If you were to pick the 5th Edition, be aware of that the 6th edition takes into account the recent 6th speci-fication 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`.

3.2 Online Resources

- Code examples from the textbook
- Dr. Michael Dowell–who teaches CSCI 1302–Principles of Computer Programming II–lists some inter-resting 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/.

3.3 Homework Assignments

- Homework #1
- Homework #2
- Homework #3
- Homework #4
- Homework #5
- Homework #6

3.4 Documents Shared in Class

Date	Title	
08/14	Study Guide	Webpage, printable document
08/26	Datatypes	Webpage, printable document, editable document
08/29	Project #1 Instructions	Webpage, printable document, editable document
10/14	Project #2 Instructions	Printable document
11/07	Project #3 Instructions	Project Zipped
11/22	Mystery Word Program	.cs file

4 Legal and Recommendations

4.1 Academic Integrity

The University's Student Code of Conduct, the student's manual, as well as the academic regulations and all 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.

4.2 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.

4.3 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.

5 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
- 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.