Principles of Computer Programming
I–Spring 2018
CSCI 1301
Clément Aubert
December 28, 2017

WARNING: This webpage is still work in progress.

Quick Facts

- Class meets Tue. & Thu., 11:30 am – 12:45 pm in AH N-126,
- Lab. meets Tue. & Thu. 1:00 pm – 1:50 pm (Section A) or 2:00 pm – 2:50 pm (Section B) in AH N-344,
- The instructor can be reached at caubert@augusta.edu, his office (AH E-128) hours are Mon. 2:30–4:30pm & Thu. 3:00–5:00pm

Quick Links

Laboratory • Homeworks • Snippets of code • Shared Documents • Planned schedule

Presentation

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.
Learning Outcomes

Upon successful completion of this class, the student will:

1. Understand the fundamentals concepts of programming languages:
   - The existence of multiple paradigms
   - The role of compilation
   - What is the flow of control
   - Reading simple algorithms

2. Be able to write, compile and execute simple C# programs:
   - Use of Visual Studio’s basic features (including debugging),
   - Perform standard Input / Output operations,
   - Declare and use user-defined variables and constants, using appropriate data-types,
   - Declare, define and call user-defined functions,
   - Write and evaluate expressions using arithmetic, relational and logical operators,
   - Define, create and manipulate arrays,
   - Understand and implement classes and objects.

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. Additional resources will be used on a regular basis. 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.

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:

What I’m expecting from you

- Check the announcements periodically on the class website.
• Read this entire syllabus carefully.
• Participate actively in all class discussions.
• Do the homeworks and projects wisely: read your notes before starting the homework assignments, make sure you understand it completely before considering it done.
• Come prepared and on time to classes, laboratory, exams and quizzes.

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.
• Dedication to your success!

Course Requirements

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

During both lecture and laboratory
• Attendance is not mandatory.
• 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 (i.e., Fri, March 2nd), but I reserve the right to withdraw a student that missed 10% of class time and half of the quizzes and tests.
• 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 will be placed onto the final’s weight.

During lecture
• 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 classmates.
• Late arrival and early departure are not allowed. Class starts at 11:30 am and ends at 12:45 pm: arrange your schedule around this, or don’t come at all.

During laboratory
• Come to your section’s laboratory, you’re not free to change sections during the semester.
• Late arrival and early departure are tolerated, but don’t expect me to go over instructions a second time for you, and do not disturb your classmates with your questions.

Practical Information

Time and Place
• Lecture: Tuesday and Thursday, 11:30 – 12:45am in Algood Hall, N-126 (a.k.a. Classroom G)
• Laboratory: Tuesday and Thursday, 1:00 pm – 1:50 pm (Section A) or 2:00 pm – 2:50 pm (Section B) in Algood Hall, N-344

Instructor

<table>
<thead>
<tr>
<th>Name</th>
<th>Dr. Clément Aubert</th>
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</thead>
<tbody>
<tr>
<td>Office</td>
<td>Algood Hall E-128</td>
</tr>
<tr>
<td>Phone</td>
<td>706-737-1566</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:caubert@augusta.edu">caubert@augusta.edu</a></td>
</tr>
<tr>
<td>Office Hours</td>
<td>Monday 2:30 – 4:30pm, Thursday 3:00 – 5:00pm and by appointment</td>
</tr>
<tr>
<td>Institute</td>
<td>School of Computer and Cyber Sciences vice Hull College of Business</td>
</tr>
</tbody>
</table>

Feel free to drop by when I’m in my office, but be aware that I may be busy, too: if you have multiple questions or if your question requires more than 5 minutes to be exposed and answered, please arrange an appointment with me.
Tutoring

For more tutoring resources, consult the tutoring center.

Grades

Students will be evaluated using four different types of evaluation:

1- Six 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 six quizzes with questions taken from those assignments and the laboratory exercises will be given. Those quizzes happen every other Thursday (see the planned schedule), are closed book and timed (5 – 20 min.).

2- Five projects will be carried at home or during laboratory, and submitted electronically through Desire2Learn. Those projects will be due every other Thursday (see the planned schedule).

3- There will be two in-class exams, held during the regular class periods on Thursday 02/22 and Thursday 03/29.

4- The final exam will take place during the exam period, i.e., Monday 07/05, 11am-1pm, in AH N-126.

Your grade will be computed as follows:

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes (×6)</td>
<td>10%</td>
</tr>
<tr>
<td>Projects (×5)</td>
<td>10%</td>
</tr>
<tr>
<td>In-class Tests (×2)</td>
<td>40%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>40%</td>
</tr>
</tbody>
</table>

using the following course grade scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90 – 100</td>
</tr>
<tr>
<td>B</td>
<td>80 – 89</td>
</tr>
<tr>
<td>C</td>
<td>70 – 79</td>
</tr>
<tr>
<td>D</td>
<td>65 – 70</td>
</tr>
<tr>
<td>F</td>
<td>Below 65</td>
</tr>
</tbody>
</table>

Planned Course Schedule
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Chapter</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>01/08</td>
<td>Syllabus, Introduction</td>
<td>1.3–1.6</td>
<td>Homework #1 released</td>
</tr>
<tr>
<td>2</td>
<td>01/15</td>
<td>C# and Visual Studio</td>
<td>2</td>
<td>01/18: Quiz #1, Homework #2 released</td>
</tr>
<tr>
<td>3</td>
<td>01/22</td>
<td>First Programming Concepts</td>
<td>3.1–3.8</td>
<td>01/25: Project #1</td>
</tr>
<tr>
<td>4</td>
<td>01/29</td>
<td>Continued</td>
<td>-</td>
<td>02/01: Quiz #2, Homework #3 released</td>
</tr>
<tr>
<td>5</td>
<td>02/05</td>
<td>Class, Objects, Methods</td>
<td>4.1–4.5</td>
<td>02/08: Project #2</td>
</tr>
<tr>
<td>6</td>
<td>02/12</td>
<td>Continued</td>
<td>-</td>
<td>02/15: Quiz #3, Homework #4 released</td>
</tr>
<tr>
<td>7</td>
<td>02/19</td>
<td>Review Session</td>
<td>-</td>
<td>02/22: Exam #1</td>
</tr>
<tr>
<td>8</td>
<td>02/26</td>
<td>Methods and Constructors</td>
<td>4.8–4.9</td>
<td>03/01: Project #3</td>
</tr>
<tr>
<td>9</td>
<td>03/05</td>
<td>Operators</td>
<td>3.8, 6.11</td>
<td>03/08: Spring Pause</td>
</tr>
<tr>
<td>10</td>
<td>03/12</td>
<td>while and if Statements</td>
<td>5.1–5.11</td>
<td>02/15: Quiz #4, Homework #5 released</td>
</tr>
<tr>
<td>11</td>
<td>03/19</td>
<td>for Statements</td>
<td>6.1–6.4</td>
<td>03/22: Project #4</td>
</tr>
<tr>
<td>12</td>
<td>03/26</td>
<td>Review Session</td>
<td>-</td>
<td>03/29: Exam #2</td>
</tr>
<tr>
<td>13</td>
<td>04/02</td>
<td></td>
<td>-</td>
<td>Spring Break</td>
</tr>
<tr>
<td>14</td>
<td>04/09</td>
<td>do...while and switch Statements</td>
<td>6.7–6.10</td>
<td>04/12: Quiz #5, Homework #6 released</td>
</tr>
<tr>
<td>15</td>
<td>04/16</td>
<td>More About Methods</td>
<td>7.1–7.5, 7.10–7.12, 7.18</td>
<td>04/19: Project #5</td>
</tr>
<tr>
<td>16</td>
<td>04/23</td>
<td>Continued</td>
<td>-</td>
<td>04/26: Quiz #6</td>
</tr>
<tr>
<td>17</td>
<td>04/30</td>
<td>Review session</td>
<td>-</td>
<td>04/30 is end of class</td>
</tr>
<tr>
<td>18</td>
<td>05/07</td>
<td></td>
<td>-</td>
<td>05/07, 11am-1pm, AH N-126: final</td>
</tr>
</tbody>
</table>

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.

**Additional Material and Resources**

**Textbook**

Textbook is optional, but strongly recommended.

Book can be purchased through JagStore, select

- JAGSTORE – 2018 SPRING–AUGUSTA UNIVERSITY
  - CSCI–CSCI
    * 1301
      · A-Aubert, Clement

We will follow the 6th edition, but using the 5th edition is also acceptable. 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 (name of the methods?). Also, the chapters in the schedule above are for the 6th edition, there might be occasional mismatches with the 5th edition.

TO DECIDE

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

Homework Assignments

Check the schedule for more information.

None at the moment.

Snippets of Code

None at the moment.

Documents Shared in Class

None at the moment.
Legal and Recommendations

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.

Accommodations for Students with Disabilities

I am committed to make my lecture accessible to all the students. If you are registered with Testing and Disability Services and have not met with me yet, please see me as soon as possible to discuss accommodations.

Campus Carry Legislation

Please be aware of the USG guidance on House Bill 280.

Miscellaneous

- Reservation of Rights: I reserve the right to change this syllabus without limitation and without prior notice. If I do modify any item or policy, I will notify you during a lecture, or send an e-mail to your augusta.edu e-mail account.
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- Contact: caubert@augusta.edu
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