# Introduction – Welcome to CSCI 1301!

https://csci-1301.github.io/about#authors January 17, 2023 (07:48:15 PM)

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For this first lab, we would like to discuss three important topics for you to succeed in this class.

- 1. How to access the material and navigate our resources,
- 2. What to read first,
- 3. How to get help.

As you may have noted, the list of topics was already included a first time below the title: we generally try to include a table of contents and summary, along with numerous links, to make our guides easy to navigate.

## 1 Navigating our Resources

We strive to provide to our students all the material they will need to succeed in one place, at https://csci-1301.github.io/. On this website, you will find

- "The book"<sup>1</sup>, which contains the lecture notes to cover one semester, and is available in pdf<sup>2</sup> (for printing, typically) and in odt<sup>3</sup>/docx<sup>4</sup> (for editing, typically; docx included for Microsoft Word compatibility). Along with the html version<sup>5</sup> (i.e., the website), this gives four convenient ways of accessing the content of this course.
- Slides<sup>6</sup> accompanying the lecture notes (in pptx and pdf).
- The labs<sup>7</sup>, which are (most of the time) tied to particular lectures, and contains hands-on practice exercise as well as instructions on how to use computers to complete this class.
- Along with other useful documents<sup>8</sup> about this class or studying at our school<sup>9</sup> in particular.

<sup>&</sup>lt;sup>1</sup>https://csci-1301.github.io/book.html

<sup>&</sup>lt;sup>2</sup>https://csci-1301.github.io/book.pdf

<sup>&</sup>lt;sup>3</sup>https://csci-1301.github.io/book.odt

<sup>&</sup>lt;sup>4</sup>https://csci-1301.github.io/book.docx

<sup>&</sup>lt;sup>5</sup>https://csci-1301.github.io/book.html

<sup>&</sup>lt;sup>6</sup>https://csci-1301.github.io/slides.html

<sup>&</sup>lt;sup>7</sup>https://csci-1301.github.io/labs/

<sup>&</sup>lt;sup>8</sup>https://csci-1301.github.io/#other-documents

 $<sup>^9 \</sup>mathrm{https://www.augusta.edu/ccs/}$ 

The main purpose of this first lab is to help you navigating those resources. We want this reading to be pro-active, so we will include questions and actions like the ones below every now and then to help you be engaged with the material.

**Question:** We used five different file formats in the text above you may not be familiar with. Along with markdown (md), that's six: can you make sure you know them all and know their purposes? Looking them up on wikipedia<sup>10</sup> and reading the first paragraph of each of their pages can be a good way of getting started!

**Action:** On the html version of our documents (so, on the website), you will always find in the footer links to the pdf, odt, and docx versions of the document you are currently reading. Download them by clicking on the "↓ pdf", "↓ odt", and "↓ docx" links, then make sure you can open them all. You should realize that their content is identical to the page you are currently reading!<sup>11</sup>

You may also have seen the Source  $\operatorname{code}^{12}$  and About<sup>13</sup> links in the footer: the first one will give you access to the "frame" we are using to construct all of these resources, and the second contains information about the authors, copyrights and tools used to construct this website. Even if you do not need to understand the source code and details of the implementation of these resources (which uses, as you may have guessed ... markdown!), being curious about them may be extremely useful for the sake of learning, if you want to become an Undergraduate Course Assistant (UCA)<sup>14</sup>, are interested in contributing to open-source project, or simply wonder how the magic is done!

### 2 What to Read First

Your instructor(s) will be your primary guide when it comes to the order in which you need to read the material hosted here. However, you should feel free to explore our other useful documents<sup>15</sup> that contain information you may be interested in fairly early in the semester (like...today!). Typically, the Installing Software<sup>16</sup> page should probably be one of the first documents you read: it explains in detail how to set-up your computer to be able to execute, compile and study the code we will be discussing in class and lab, and how to access and use the computer labs.

**Action:** Reading instructions is not always easy. You should try to always understand what is crucial, what is important, and what is optional. Although you may have overlooked that subtlety, the previous paragraph actually meant

Go read Installing Software<sup>17</sup> as soon as possible, you want to be ready for the next lab!

This is particularly true for labs asking for you to set things up: there is little to gain in postponing that step, and if you are facing difficulties, it is better to ask earlier rather than later!

Some of the resources on this website are still in flux: the instructors are working hard to construct the material from scratch, and we are sorry if at times you feel that you are going through dry runs. On the flip side, remember that you did not have to buy a textbook, and that these resources will be tailored for your use and course of study here at Augusta University: among many other specificities, like using C#, we are making sure that security and other cyber-related issues are regularly discussed!

 $<sup>^{10} \</sup>rm https://en.wikipedia.org/wiki/List\_of\_file\_formats$ 

<sup>&</sup>lt;sup>11</sup>Even this sentence will be displayed, even if it makes no sense to discuss the links in the footer of a pdf file, which does not have them!

<sup>&</sup>lt;sup>12</sup>https://github.com/csci-1301/csci-1301.github.io

<sup>&</sup>lt;sup>13</sup>labs/Introduction/../../about.html

 $<sup>^{14} \</sup>rm https://csci-1301.github.io/uca.html$ 

<sup>&</sup>lt;sup>15</sup>https://csci-1301.github.io/#other-documents

<sup>&</sup>lt;sup>16</sup>labs/Introduction/../../software install.html

 $<sup>^{17}</sup> labs/Introduction/.../../software\_install.html$ 

You should also remember that the internet is (also!) a wonderful place where many useful resources are shared. For instance, this guide on open source<sup>18</sup> is an excellent place to understand what open source is and why it matters. Our resources are supported by Affordable Learning Georgia, which strives to share good, accessible and free (as in "free coffee" and as in "free speech") Open Educational Resources (OER) to students in Georgia: reading their "About" page may help you understand the importance and benefits of developing resources here, for you!

#### **Questions:** Answer the following:

- What exactly is implied by "free" as in "free coffee" and as in "free speech"?
- Try to understand what "free software<sup>20</sup>" means: is it like coffee (some people say "beer") or like speech?
- Are the resources presented here free as in coffee, as in speech, or both?
- And what about your computer's operating system?
- Your media player?

Try to look at the licenses of some of the software you use on a daily basis. You may realize that some important software products are actually open source, and host their code on e.g., github!

#### Elements of solution

- "Free" as in "free coffee" means that you are welcome to use the resource without paying for it. It means "at no monetary cost" (gratis).
  - "Free" as in "free speech" relates to liberty. It means "with little or no restriction" (libre).
- A free software is free as in speech: per the FSF<sup>21</sup>,

Free software is software that gives you the user the freedom to share, study and modify it. We call this free software because the user is free.

This means that a free software can comes at a cost (it is not necessarily "gratis"), but that once it is paid for, you can use it in any way you like: edit it, improve it, copy it, and in some cases redistribute it.

- The resources presented here are free as in coffee and speech.
- If your computer is running Windows<sup>22</sup> or  $macOS^{23}$ , then it is mostly proprietary (read: not free). Android<sup>24</sup> is mostly free, and Linux<sup>25</sup> distributions are in general completely free.
- For your media player, you should check yourself! One excellent media player released under a free license is VLC<sup>26</sup>!

## 3 How to Get Help

This may be the most important aspect of this lab: understanding when to get help, and how to obtain it, is critical in succeeding in your studies (be it in this class or other classes!). Your instructor(s) should be your first point of contact for any question regarding the content of this class, but many other resources are available, through the University, for this class, or through clubs. Also, understanding *how* to ask is extremely important.

<sup>18</sup> https://opensource.guide/
19 https://www.affordablelearninggeorgia.org/about/about\_us
20 https://en.wikipedia.org/wiki/Free\_software
21 https://www.fsf.org/about/what-is-free-software
22 https://www.microsoft.com/en-us/licensing/product-licensing/windows
23 https://www.apple.com/legal/sla/
24 https://en.wikipedia.org/wiki/Android\_(operating\_system)#Licensing
25 https://en.wikipedia.org/wiki/Linux#Development
26 http://www.videolan.org/

All of that is discussed on this page<sup>27</sup>.

**Action:** Read the How to get Help<sup>28</sup> page.

**Action:** If you feel like it, create an account on Github<sup>29</sup> and leave a comment! We'll be happy to read from

Action: You may have noticed that multiple links point to https://www.wikihow.com/. Can you check if

the content and the software platform of wikihow are free (as in coffee or speech)?

 $<sup>\</sup>frac{27}{\text{labs/Introduction/.../getting\_help.html}}$   $\frac{28}{\text{labs/Introduction/.../getting\_help.html}}$   $\frac{29}{\text{https://github.com/login}}$