CBE 3300 Software

Contents

Software you should install

- VS Code
- Python (Miniconda)
- Arduino IDE
- Git
- CAD of some form

Instructions for installing some of the programs are below. Refer to the official website for the latest installation instructions.

If using a different computer, or you just want to try a program out, you can often download a compressed archive (zip, tar, 7z, etc) – usually from the official GitHub repository. Extract the files and run the executable to run the program without installing.
*Note: this can also be used to avoid the need for admin rights.

cbe3300 Python environment

Installation

1. Download `env-cbe3300.yaml`.

2. Run the following from an Anaconda Python distribution:

   ```
   conda env create --file env-cbe3300.yaml
   ```

3. Activate the environment with `conda activate cbe3300`.

Mac

We'll use the terminal where we can. To open yours, use the spotlight search (`Cmd + Space`) or the keyboard shortcut (`Cmd + Shift + T`).

VS Code

VS Code is part text editor, part IDE, part terminal, part content management system, part PDF viewer, part anything you can do in a browser. It's awesomely versatile and lightweight.

Download it here: https://code.visualstudio.com/download.

Git

Check if git is installed by typing `git`.

If not, check out the installation process here: https://www.git-scm.com/download/mac.

While git isn't required for this class, it's good practice to maintain your code in version control.

Miniconda

Miniconda will be the environment manager we use for Python. It's lighter (fewer files to download) than Anaconda and provides the same functionality.

See the install page here: https://docs.anaconda.com/free/miniconda/ or use the commands from that page:

```
mkdir -p ~/miniconda3
curl https://repo.anaconda.com/miniconda/Miniconda3-latest-MacOSX-arm64.sh -o ~/miniconda3/miniconda.sh
bash ~/miniconda3/miniconda.sh -b -u -p ~/miniconda3
rm -rf ~/miniconda3/miniconda.sh
```

Then:

```
~/miniconda3/bin/conda init bash
~/miniconda3/bin/conda init zsh
```

Environment

Once installed, create an environment for CBE 3300.

You can either do this manually or (recommended) download `env-cbe3300.yaml` and install from the spec. Make sure you're in the directory containing the file before running this command as written.

```
conda env create --file env-cbe3300.yaml
```

Windows

Miniconda

Install by downloading the executable or unpacking the zip file.

If using on a university computer, access it from the Anaconda/Miniconda prompt, rather than Command Prompt or PowerShell. Then open VS Code from within the *conda prompt.

I can't open my terminal or command prompt anymore

https://answers.microsoft.com/en-us/windows/forum/all/fixed-cant-open-command-prompt-cmd-on-windows-10/4456f08d-bfd4-4484-be77-fb958ff202d8

Edit the AutoRun registry key. You can also delete it.