

## Contact Information

**Name:** William Goble      **Office:** Tome 246      **E-mail:** goblew@dickinson.edu  
**Office Hours:** M/W: 1:00pm-2:30pm, T/R: 10:00am-11:30am<sup>1</sup>

## Meeting Times

Lecture: Thursday    1:30PM – 2:45PM

Tome 118

## Course Description

An introduction to the Unix command line environment, shell scripting, system administration, debugging tools, and version control. Skills developed will be applied in the context of a Humanitarian Free and Open Source Software (HFOSS) project. Case studies of social, legal, and ethical issues raised by computing and computing for the greater good will complement the technical skill development.

**Prerequisite Knowledge:** This course assumes at least a semester of prior programming experience in a high-level language. The normal prerequisite is Dickinson COMP 130 – Introduction to Computing, or at least concurrent enrollment in Dickinson COMP 132 – Principles of Object-Oriented Design.

## Course Schedule

Assignment details including due dates and topics are indicated on the Course Moodle page.

## Textbook

Reading materials for this course will be provided via links on the course Moodle.

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<sup>1</sup> If you have a conflict with my regularly scheduled office hours or would like to schedule a separate meeting, please message me on Teams.

## Learning Goals

Students will

- gain proficiency with command line interaction with a Unix operating system, including installation and configuration of software, shell scripting, and basic system administration tasks.
- gain proficiency with modern software development tools and their common uses including a debugger and a version control system.
- deepen their understanding of social and ethical issues in computing and their appreciation of computing for the greater good.
- develop their ability to produce clear, concise, technical writing for developers, this is a Writing in the Discipline goal.

## Community and Inclusivity

All members of this class are equally valued members of our course community. The instructor aims to create an *inclusive atmosphere* in which we can listen and speak in ways that are respectful of each other and our diversity of heritages, identities, experiences, knowledge and views. All questions will be accepted and treated with kindness. Some topics will push us to develop new ideas and opinions about things we may not have thought about before. The instructor aims to promote a *generous atmosphere*. One where we listen and speak to understand. One where all are given the benefit of the doubt as they try out new and partially formed thoughts and opinions. One where we respond to and critique statements and ideas, not individuals. If you feel at any time that these ideals are not being met or have ways that our course atmosphere can be improved you are encouraged to reach out to the instructor. In cases where talking with the instructor is not comfortable please contact your advisor, the Department Chair or another trusted College official for guidance.

## Communications

All communications outside of in person meetings will occur via Teams or GitHub. Communication in public channels is preferred. However, sensitive conversations should be initiated as a private chat or email.<sup>2</sup>

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<sup>2</sup> During the week I will try to answer your emails/messages within 24 hours, and over the weekend I will answer messages within 48 hours.

## Course Components

- **Readings & Discussions**

A short reading on contemporary social/legal/ethical issues in computing will be assigned prior to most class meetings. The class meeting will begin with a class discussion of that reading. You are expected to do the readings in advance and come to class prepared to contribute to the discussion. Note that while everyone is expected to prepare for every discussion, it is not required that everyone contribute to every discussion. However, you are expected to contribute regularly enough to demonstrate you are preparing and engaging with the materials. Students who are failing to demonstrate sufficient engagement or participation will be given updates and suggestions for improvement.

Students may reference notes or digital copies of the readings on their laptops or other devices during discussions, **but if at any point the instructor believes that this is too big of a distraction during the discussion, they have the right to have laptops and other devices closed during the discussion period.**

To prepare for class discussions you might:

- Identify the main points made by the reading
- Think about your position on any of the issues that are raised, especially those which are controversial or unsettled
- Note things that you found interesting that you would like to hear the opinions on, either from your instructor or your fellow classmates.
- Prepare questions to ask on things that were unclear to you.

- **Introductory Presentations**

Each class will include a short introductory presentation to the day's topic by the instructor. This introduction is intended to provide a big picture view of the topic and how it fits into the larger context of the course, software development, and open source. They are *not* intended to provide all the information that you need to complete the activities.

- **Homework Activities**

Following each introduction, you will complete a collection of activities that guide you through the development of the main ideas, techniques for solving problems, and provide practice with the material. These activities

will start from the introductory material but will also contain additional videos/readings and guide you through the learning of additional new material that builds on the introductory material.

You should expect that the Activities will require 3-4 hours outside of class. This is consistent with Dickinson's standard that "at least three hours of study accompany each class period." If you find the activities are taking significantly longer than the expected time, please reach out to your instructor to discuss strategies for reducing the time required.

**Homework activities are due before the next class meeting.**

- **Quizzes**

After the completion of each Activity there will be a quiz posted to Moodle. These quizzes will generally be short (~10 questions) and will draw on the material from the Introductory Presentation and the Activity. These quizzes are intended to be a review and to help you self-assess what you learned well and where you need to learn a little more. A quiz can be retaken as many times as you like. However, I encourage you to not just guess, doing so has no value to your learning. Instead, if you find yourself missing questions, review the relevant material, learn a little more, and then attempt the quiz again. In doing so, you will not only learn the material, but will also better understand how you learn.

**Quizzes are due one week after the associated homework activity is due.**

## Grading

The COMP 190 course is graded as a Credit/No Credit course, see [Dickinson's Academic Policies and Procedures](#) for more information about this. The points below explain how each component of the course is scored and what is required to receive credit for the course as a whole.

- **Participation / Attendance / Engagement (PAE)**

You will receive a PAE score for each class meeting using the following rubric

| Score | Criteria |
|-------|----------|
|-------|----------|

|   |  |
|---|--|
| 3 | Present; Demonstrating careful and thorough preparation; Highly engaged in class and discussion; Contributing; Asking questions; Participation and improved the class for all. |
| 2 | Present; Demonstrates some preparation; Engaged in class and discussion; Actively listening; Possibly making contributions or asking questions                                 |
| 1 | Present; Possibly demonstrates a lack of preparation; Possibly not fully or consistently engaged.  |
| 0 | Absent; Actively disengaged (phone, laptop, etc.); Possibly distracting to others  |

If you know you will be unable to attend a class due to a [College recognized religious holiday](#) or other extenuating circumstances please contact your instructor in advance. If your request is in line with [College Policy](#), reasonable, and timely we will make accommodations and provide an alternative means of earning PAW score for the missed class.

In the case of illness, please contact me as soon as possible (still preferably before class) and again, if reasonable and timely, we will make accommodations and provide an alternative means of earning a PAE score for the missed class.

If you contact the instructor regarding an absence and the instructor judges that the reason for the absence is valid, you may earn a PAE score of 2 for the missed day by submitting – either by Teams or e-mail -- 250 – 400 word summary of your thoughts on the reading(s) that were assigned for the class discussion that was missed. This summary must be submitted within one week of the missed class period, unless otherwise arranged with the instructor.

- **Homework Activities**

You will receive a score on each Homework Activity using the following rubric:

| Score | Criteria   |
|-------|--|
| 3     | On time; Complete; Demonstrates a strong understanding and thoughtful engagement; Uses complete sentences; Neat and organized  |
| 2     | On time or max for a late/resubmission; Complete or nearly-complete; Demonstrates a sufficient understanding of the material; Some answers may not fully address the question, be unclear, be insufficiently explained, use incomplete sentences, and/or be messy/disorganized |
| 1     | Insufficiently complete; Fails to demonstrate acceptable level of understanding.   |
| 0     | Not submitted or largely incomplete  |

A Homework Activity receiving a score one or zero may be (re)submitted **once within one week** of being returned to the class. An activity (re)submitted within one week will be (re)scored and the new score will replace the original. Late or resubmitted activities will receive a maximum score of two. (Re)submissions more than one week after an assignment is returned to the class will not be accepted and the original score will remain. Extensions beyond one week will only be considered in extenuating circumstances with appropriate documentation. Please see the “Life Happens” section at the bottom of this document.

- **Quizzes**

You will receive a score on each Quiz using the following rubric:

| Score | Criteria   |
|-------|--|
| 3     | Perfect Score; 100%                              |
| 2     | Sufficient Score; > 90%                          |
| 1     | Unused. All quizzes must be at least sufficient. |
| 0     | Quiz has not been taken or is not sufficient.    |

Quizzes are automatically graded by Moodle and may be taken as many times as necessary to achieve a perfect or sufficient score. Quizzes must be up to date at Roll Call (i.e. fall pause) and at the time of the Final Exam.

## **Receiving Credit for the Course**

Based on section above, in order to receive credit for the course, you must meet the following criteria.

| Element             | Criteria                                     |
|---------------------|--|
| PAE                 | Minimum of 30 points, with at most one zero. |
| Homework Activities | Minimum of 28 points with no zeros.          |
| Quizzes             | Minimum of 28 points, with no zeros.         |

The instructor reserves the right, with notification to the class, to reduce (but not increase) the point totals required for credit. (e.g. in the event of a canceled class, a day with no reading, a faulty quiz, etc.)

## Academic Integrity

Please take the time to read the Academic Misconduct section of [Dickinson's Community Standards](#). Violations of this policy are considered serious transgressions, so you should be especially certain that you understand your rights and responsibilities under it. Students suspected of academic dishonesty will be subject to the process outlined in the [Student Conduct](#) pages.

The specific policies for COMP 190 are detailed below. If you are uncertain about whether or not certain kinds of collaboration or sources are permissible on an assignment, or in this course, ask your instructor.

- **Collaboration**

Homework Activities and Quizzes in COMP190 are individual assignments. All work submitted *must be your own work*. The sharing or receiving of answers to assignments is not permitted.

However, you are encouraged to interact and to help each other learn. For example

- You may ask and answer clarifying questions about assignments from your peers
- You may ask for suggestions of other resources to use or how to proceed with an assignment.
- You can help each other complete individual questions in the activities, as long as you each do the work individually.
- You can visit evening TA hours in Tome 118.

All of these types of questions can be asked of the instructor or of your classmates, either in person or on the course Teams channel. You are encouraged to ask and respond on the Teams channel. If you ask in person, please try to post what you learn to the channel. This will ensure that others with the same questions will have access to the same helpful information that you receive.

**What you cannot do is copy answers from someone else. You must complete all questions or exercises yourself on your own machine.** It is the process of trying and working through these exercises that builds your experience. That experience is what you will need to succeed in future classes, internships, and jobs.

- **Outside Sources**

There exist websites where answers can be looked up or where one can ask for solutions. There are undoubtedly assignments from past offerings of this course that are available to some of you. There are also tools which can generate answers to some of the questions you will be asked. Regardless of the availability of these materials, **the bottom line is that you are responsible for ensuring your own mastery of the material.** Failure to do so will limit your success in this class, in future classes, internships, and jobs that rely on this material.

That said, for some problems you will be expected to use web searches and outside sources. In those cases this will be explicitly indicated in the problem. Otherwise, the expectation is that you should be able to answer the question based on what you already know combined with careful and creative thought and diligent effort. If you struggle with such a question, ask for suggestions (see Collaboration above.)

## **Intellectual Property Rights**

Audio or video recording of class meetings, lectures, or discussions is prohibited without explicit permission of the instructor. Photographic records or whiteboards, projected slides, or other visual media is also prohibited without explicit permission of the instructor. In any case where permission is given for audio/video/photographic records to be made they are for personal use only. They may not be shared or redistributed and must be destroyed at the end of their usefulness or within one week following the termination of this course, whichever comes first. Similarly, any redistribution of sample code, homework solution sets, or provided lab code is prohibited.

Please note that all outside material used in the course (readings, tutorials, assignments, projects, etc.) are also to be governed by their own licensing and copyright agreements.

## **Accommodations Students with Disabilities**

Dickinson values diverse types of learners and is committed to ensuring that each student is afforded equitable access to participate in all learning experiences. If you have (or think you may have) a learning difference or a disability – including a mental health, medical, or physical impairment – that would hinder your access to learning or demonstrating knowledge in this class, please contact Access and Disability Services (ADS). They will confidentially explain the accommodation request process and the type of documentation that Dean and Director Marni Jones will need to determine your eligibility for reasonable accommodations. To learn more about available supports, go to [www.dickinson.edu/ADS](http://www.dickinson.edu/ADS),



email [access@dickinson.edu](mailto:access@dickinson.edu), call (717)245-1734, or go to the ADS office in Room 005 of Old West, Lower Level (aka “the OWLL”).

If you’ve already been granted accommodations at Dickinson, please follow the guidance at [www.dickinson.edu/AccessPlan](http://www.dickinson.edu/AccessPlan) for disclosing the accommodations for which you are eligible and scheduling a meeting with me as soon as possible so that we can discuss your accommodations and finalize your Access Plan. If you will be using any test-taking accommodations in this class, be sure to enter all test dates into your Access Plan in advance of our meeting.

**Physical Access to My Office:** My office is located on the 2<sup>nd</sup> floor of Tome Hall which has an elevator, located to the left of the main entrance. If you require the use of an elevator to access the 2<sup>nd</sup> floor, please let me know. If there is ever a malfunction with the elevator, we will be notified by email, and we can identify a different location in which to meet.

## **Life Happens**

Sometimes stuff just happens. Sometimes it is an unexpected sudden event such as an illness or family emergency. Other times it may be an ongoing issue or concern or an accumulation of smaller issues. Any of these things may affect your ability to focus or perform up to your potential through no shortcomings or fault of your own. Dickinson College is a kind and caring community, and we want to see you achieve at your full potential. So, if you are experiencing life events that are affecting your performance please do not hesitate to talk to your professor, your advisor, or your class dean. They will all be willing to talk with you, help to formulate a plan and/or connect you with others that may be able to assist.

## **Syllabus Changes**

Except for changes that substantially affect implementation of the grading statement, this syllabus is a guide for the course and is subject to change with advance notice.