# Syllabus for COMP 290-02: Large-scale and Open Source Software Development

Spring 2023

Dickinson College

Instructor: John MacCormick

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| This is a half-credit course, graded on a credit/no-credit basis. To receive credit for the course, all assignments must be completed satisfactorily and satisfactory participation in the software development project must be demonstrated. |

### Learning goals

Students will

* acquire concepts and skills necessary for large-scale and Free and Open Source Software (FOSS) development including software processes, FOSS philosophy and licensing, community structures and communication mechanisms.
* deepen their understanding of social and ethical issues in computing and appreciation of computing for the greater good.
* [WiD goal] develop their ability to write effectively in the context of a software development team.

### Inclusivity

Everyone in the course belongs equally to our classroom community. The instructor aims to create an atmosphere where everyone feels a sense of belonging and feels free to ask questions.

Teaching methods

* Self-guided practical activities for learning new software frameworks and techniques (referred to below as the *FarmData2 School* acitvities)
* 6-week team software development project working on a contribution to the FarmData2 open source project (referred to below as the *FarmData2 Epic*, or just *Epic*)
* Required readings and class discussions of the readings
* Lectures describing software technologies and software engineering techniques

When and where

* Classes: Wednesday 1:30–2:45pm in Tome 232
* Office hours: see the instructor's [office hour webpage](http://users.dickinson.edu/~jmac/office-hours.html).

### Books

There is no textbook for this course. Readings will be made available on Moodle or on the course webpages.

### Assessment and grading

* This course is graded on a credit/no-credit basis.
* **To receive credit for the course: (i) all assigned work must be completed satisfactorily by the end of the exam period; and (ii) satisfactory participation in the** FarmData2 Epic **project must be demonstrated.**
* The instructor will grade a random subset of submitted work. Any work graded as unsatisfactory must be re-submitted for re-grading. As already stated above, all assigned work must be completed satisfactorily to receive credit for the course.
* The instructor will assess participation in the FarmData2 Epic regularly based on the progress report assignments (EPR1-EPR3), the final presentation assignment (FP), observation of team meetings, and code repository commits. If a student’s contributions are assessed as unsatisfactory at any point, the instructor will issue an *unsatisfactory progress warning* to the student. At the end of the semester, the instructor will make a holistic decision of whether the FarmData2 Epic contributions were satisfactory over the six weeks of the project. As a guideline, however, it is likely a student will not receive credit for the course if the student receives more than one unsatisfactory progress warning.
* The main assignments are listed in the bullet points below. The due dates for assignments are given on the class schedule, available from the course webpage. Detailed requirements for each type of assignment are given on the course webpages.
  + **FarmData2 School activities:** There will be approximately eight assignments using materials from the FarmData2 School assignment collection. These are labelled FDS2 through FDS9 on the course schedule. (FDS1 was completed in COMP190.) Each of these assignments builds skills in a new software technology. These assignments are due by 11:59 PM on the Monday following the class in which the assignment is given.
  + **Moodle posts:** There will be approximately five Moodle post assignments (MP1-MP5 on the schedule). Each post should consist of at least one discussion question related to the assigned reading. Moodle posts must be submitted by 8 AM on the due date.
  + **Epic progress reports:** There will be approximately three assignments consisting of a progress report on the Epic project (EPR1-EPR3 on the schedule). Progress reports must be submitted by the start of class on the due date.
  + **Final presentation:** Each team for the FarmData2 Epic will present the results of their work in the final exam slot on Tuesday, May 16 from 2 PM-5 PM.

### Amount of work

College policy recommends approximately 3 hours of independent work for every hour of class time. Our class meets for 1.25 hours per week. Therefore, you should expect to spend about 4 hours per week (outside of class time) on this course.

### Plagiarism, copying, and collaborating

The College's standard policy on plagiarism applies and you should be familiar with it, but here are some key points that apply particularly to this course:

* All work must be your own.
* Never copy work from someone else or allow your own work to be copied.
* You may not copy or consult assignment solutions from any source, including online repositories or solutions provided for previous instances of the course.
* If you use exact words taken from any source, you must use quotation marks and cite the source.
* Students are encouraged to help each other understand concepts, including concepts that apply to homework assignments. However, all work must still be your own. So if you discuss an assignment with someone, you must destroy any written or electronic material that results from the discussion, and re-create it later on your own.
* Be especially careful not to copy computer code from another student, or from the internet (unless an assignment question specifically states that it is permitted—and even then, state the origin of any copied code clearly using a comment in your source code). Sharing or copying computer code is easy and often tempting, but it is not permitted and will suffer the same penalties as any other form of cheating.

### Accommodations

The instructor will follow college policy on [Accommodating Students with Disabilities](http://users.dickinson.edu/~jmac/accommodations.html).

Recording and posting of class content

The instructor may record some or all class meetings. If a class is recorded, the content will be made available only to members of the class. Do not share or repost class recordings or other content; doing so would be a breach of Dickinson’s [Community Standards](https://www.dickinson.edu/info/20273/dean_of_students/867/community_standards). Classes may also be recorded for accommodation purposes.