

CS 1001: Tools for Computer Scientists

Spring 2016 Syllabus

Nathan Jarus

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1 Objective

This course will introduce you to programming tools that are useful for Data Structures (CS 1510), other classes, personal projects, and industry jobs.

Topics we will cover are listed in the class schedule. The material for the last couple of weeks will be determined by student interest. If there is something not on the schedule that you would like to learn, please let me know!

2 Instructor

The lab will be taught by **Nathan Jarus**.

E-mail: jarus@mst.edu

Website: <https://mst.edu/nmjxv3/cs1001>

Office: 113 Engineering Research Lab (ERL)

Office Hours: TBD

Text: None

3 Course Information

3.1 Section A

Location: Toomey Hall 251

Time: Wednesday, 4-6 PM

Assistants: TBD

3.2 Section B

Location: Computer Science 206

Time: Monday, 4-6 PM

Assistants: TBD

4 Grading

4.1 Attendance

4.2 Homework

5 Schedule

1. Introduction, Text Editors
2. Shell Commands and Configuration
3. Version Control
4. Shell Scripting
5. Regular Expressions
6. Using an IDE for C++
7. Build Systems
8. Debugging
9. Profiling
10. Code Linting
11. Unit Testing
12. C++ Tricks
13. Creating GTK Applications
14. TBD
15. TBD

Possible topics:

- Boost Library
- Doxygen
- L^AT_EX
- Functional C++ features
- Scripting with Ruby
- strace/ltrace

6 Policies

6.1 Prerequisites

Students must be enrolled in or have already taken CS 1510 (Data Structures).

6.2 Communication

I prefer if you contact me via email. I will send announcements concerning the course via email; you should check your email at least once a day during the school week for these announcements.

Course materials and resources will be posted to the course website.

6.3 Academic Dishonesty

I take academic dishonesty very seriously, especially in a laboratory class setting where students are expected to gain hands-on experience with the course material. You are encouraged to ask other students questions, but all classwork must be your own. Page 21 of the Student Academic Regulations Handbook describes the standard of conduct for students and gives examples of academic dishonesty. For a first offense, you will receive a score of zero on the assignment and your final grade will be reduced by one letter grade. A second offense will result in you receiving a grade of F in the class. All instances of academic dishonesty will be reported to your advisor and university administration per the university's policies.

6.4 Questions and Concerns

Do not hesitate to ask me questions or discuss concerns you have with the course, the assistants, or me. If I do not properly address my concerns or you do not feel comfortable discussing your concern with me, you should speak with my supervisor, Dr. A. Ricardo Morales. If neither of us resolve your issue, you should contact the CS Department Chair, Dr. Sajal Das.

6.5 Classroom Egress Maps

Familiarize yourself with classroom and building exits. Classroom egress maps are posted on-line at: <http://registrar.mst.edu/links/egress.html>.

6.6 Disability Support Services

If you have a documented disability and anticipate needing accommodations in this course, you are strongly encouraged to meet with me early in the semester. You will need to request that the Disability Support Services staff send a letter to me verifying your disability and specifying the accommodation you will need. Disability Support Services is located in 204 Norwood Hall. Their phone number is 341-4211 and their email is dss@mst.edu.

6.7 Title IX

Missouri University of Science and Technology is committed to the safety and well-being of all members of its community. US Federal Law Title IX states that no member of the university community shall, on the basis of sex, be excluded from participation in, or be denied benefits of, or be subjected to discrimination under any education program or activity. Furthermore, in accordance with Title IX guidelines from the US Office of Civil Rights, Missouri S&T requires that all faculty and staff members report, to the Missouri S&T Title IX Coordinator, any notice of sexual harassment, abuse, and/or violence (including personal relational abuse, relational/domestic violence, and stalking) disclosed through communication including but not limited to direct conversation, email, social media, classroom papers and homework exercises. Missouri S&T's Title IX Coordinator is Vice Chancellor Shenethia Manuel. Contact her directly (manuel@msst.edu; (573) 341-4920; 113 Centennial Hall) to report Title IX violations. To learn more about Title IX resources and reporting options (confidential and non-confidential) available to Missouri S&T students, staff, and faculty, please visit <http://titleix.mst.edu>.