

# Syllabus - Spring, 2025

## CSci 364 - Concurrent and Distributed Computing

3 credits

*"If I have seen further, it is by standing on the shoulders of giants." — Sir Isaac Newton*

This course has two registration sections. Each has a different mode of instruction.

- On-campus. Meets Tuesdays/Thursdays at 9:30am-10:45pm, Upson II, Rm 263.
- Online.

### Instructor Contact Information

Email: [david.apostal@und.edu](mailto:david.apostal@und.edu) (Email is the best way to contact me.)

Phone: 701-777-6407

Office: TBD

Office Hours: Wednesdays, 9-10:30am. Fridays, 4-5pm. By appointment via Zoom.

### Course Description

This course focuses on concurrent object oriented programming and modern distributed/parallel programming models (such as OpenMP, CUDA, OpenCL and Actors). Students will utilize various high performance distributed computing technology. Topics covered will include shared and distributed memory systems, sockets, threads, and message passing.

### Prerequisites

- CSci 330 - Systems Programming with grade of C or better

Technical requirements

- Java and C/C++ programming languages with command-line arguments
- Linux command line interface

### Course Objectives

After successfully completing this course, you will:

- Have a more polished programming style
- Be able to utilize online documentation to understand APIs
- Implement distributed applications with multiple architectures
- Understand how to avoid potential pitfalls of multi-threaded concurrent programming
- Utilize threads to improve program organization and performance

### Text

The instructor's slides and supplementary reading will be used instead of a textbook.

## Grading

The course grade will consist primarily of discussion/lab activities, programming assignments, and tests. There will be up to seven programming assignments, up to eight lab activities, a mid-term exam, and a final exam. Letter grades will be based on the following percentages: A ( $\geq 90\%$ ), B ( $\geq 80\%$ ), C ( $\geq 70\%$ ), D ( $\geq 60\%$ ).

Late policy.

Late discussion/lab assignments will not be accepted.

Up to ten percent per week may be deducted from late programming assignments.

## Schedule

See Blackboard for details

## Academic Integrity

The development of each student's individual problem solving skills needed for computer programming is one of the major objectives of this course. **Students are to work independently of each other in completing the programming assignments.**

Any exception to this rule will require documentation signed by me allowing the collaborative work.

A submission of source code that you did not develop or a homework assignment that was not your individual writing will be treated as plagiarism. These assignments will receive **zero points**, and your instructor may submit a report of Academic Dishonesty to the Dean of Students office.

If you need help, talk with your instructor.

## Attendance (online and on-campus sections)

Students in the online section are expected to login to Blackboard twice a week. Videos from the in-class lectures will be posted to Blackboard by late afternoon of each class day. It is recommended that you avoid binge class watching videos.

Students in the on-campus section are expected to attend class each day. If you know you will miss a class, please let me know. Links to in-class lecture videos will be posted to Blackboard by late afternoon of each day.

## Accessibility for Students

Upon request, the Computer Science Department will provide reasonable accommodations for students with disabilities. You must contact Accessibility for Students to request and arrange accommodations.

Accessibility for Students

Memorial Union Room 240

2901 University Ave

Grand Forks, ND 58202-9040

Phone: 701-777-2664

Email: [UND.accessibilityforstudents@UND.edu](mailto:UND.accessibilityforstudents@UND.edu)