

MATH 490.001 - Senior Seminar in Mathematics - Spring 2024

Instructor/Class Information

Instructor	Dr. Vince Guingona vgingona@towson.edu
Class Times	Monday, Wednesday, and Friday, 9 - 9:50am
Office Hours	Monday and Wednesday, 2 - 3:00pm; Friday, 11 - 12:00pm; or by appointment

Course Information

Prerequisites. Senior standing and a grade of C or better in MATH 331 and MATH 369; or permission of instructor.

Course Description. Selected mathematical topics and their applications.

Course Objectives. The primary objective of this course is to help students improve their mathematical communication skills through reading research papers and writing and presenting expository mathematics. Towards this goal, we will study Statistical Learning Theory, including Vapnik-Chervonenkis dimension, Littlestone dimension, Probably Approximately Correct Learning, Online Learning, Recursive Teaching, and so on.

Textbook. None.

Grading Policy

Your course grade will be based on the following assessments:

	Homework	30%
	In-Class Presentations	30%
	Final Presentation and Paper	40%

Percent	0-59%	60-66%	67-69%	70-76%	77-79%	80-82%	83-86%	87-89%	90-92%	93-100%
Grade	F	D	D+	C	C+	B-	B	B+	A-	A

Assessments

Homework Assignments. A number of homework assignments will be given throughout the semester. These homework assignments will be administered and collected through Blackboard under the *Homework* tab. Please feel free to work with other students on your homework assignment, but each student must submit their own

homework assignment in their own words. Late homework will be accepted up to a week after the official due date, but worth at most half-credit. Written homework accounts for 30% of your overall course grade.

In-Class Presentations. Each student will be expected to give multiple in-class presentations throughout the semester. Individual students will present to the class material related to the course topic of statistical learning theory, including solutions to homework problems, excerpts from research papers, and so on. These oral presentations account for 30% of your overall course grade.

Final Presentation and Paper. Students will be required to complete a final project at the end of the semester. This consists of two components, a final paper and a final presentation. The final presentation will be given to the class and to the mathematics department faculty. Each component is worth 20% of your overall course grade.

Other Policies

Attendance. As in all TU classes, regular class attendance is expected. If you are absent from class, it is your responsibility to get any missed information from your classmates.

It is TU policy to excuse student absences for the following reasons: illness or injury when the student is unable to attend class; death of a family member (see the [Student Bereavement Procedure](#) on the website); religious observance where the nature of the observance prevents the student from attending class; participation in University activities at the request of University authorities; and compelling verifiable circumstances beyond the control of the student. Absences that do not fall in any of these five categories are unexcused. In case of a scheduled excused absence, the student must provide documentation at least one week prior to the date of the absence for it to be excused; otherwise, documentation must be provided as soon as possible.

Academic Integrity. Students are expected to be familiar with TU's [Student Academic Integrity Policy](#), especially the sections that define plagiarism, cheating and complicity (II.B-II.E) and describe the possible grade penalties (V.C). You may work with other students in the course on the homework assignments, but each student must submit their own version in their own words.

Accessibility and Disability Services (ADS): This course is in compliance with Towson University policies for students with disabilities. Students with disabilities are encouraged to register with ADS at:

Cook Library, Academic Commons, Suite 321
410-704-2638
<https://www.towson.edu/accessibility-disability-services/>

Students who suspect that they have a disability but do not have documentation are encouraged to contact ADS ([see the ADS website](#)) for advice on how to obtain appropriate evaluation. A memo from ADS authorizing your accommodation is needed before any accommodation can be made.

Diversity. In accordance with TU, FCSM, and departmental objectives, everyone in this course is expected to be respectful of each other without regard to race, class, linguistic background, religion, political beliefs, sex, gender identity or expression, sexual orientation, ethnicity, age, veterans status, or physical ability. If you feel that these expectations have not been met, please, contact Dr. Felice Shore.

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