

Math 2070WDE Analysis II (2021 Winter)

(Online using D2L, Zoom, and WebWork)

Instructor: [Dr. Wendy Huang](#)

Zoom Lectures:

MWF: 9:30 – 10:30 AM (ET)

Note: access zoom classrooms through D2L mycourselink.

Office Hour:

T: 10:30 – 11:30 AM (ET)

Contact your instructor:

- E-Mail: whuang1@lakeheadu.ca. Any time. When sending emails regarding the course, include course number, your name, and keywords in the subject line. For example, "Subject: Math 2070, Jen Smith, formula for standard deviation". (Otherwise, your message will not be opened.)
- Zoom Tutorial: Tue. 10:30-11:30 AM.

Textbook (optional):

1. *Advanced Engineering Mathematics, 6th Edition* by D.G. Zill and W.S. Wright (Chapters 7 and 8)
2. R. Johnson, Miller & Freund's *Probability and Statistics for Engineers, 9th Edition*. (Selected topics from Chapters 2 – 11)

Performance Evaluation (Tentative):

	Weight
Assignments	20%
Exam 1 (Lin. Alg.)	40%
Exam 2 (Stats.)	40%

Note: Check your MyInfo accounts for your on-going assignment/test marks.

WebWork Assignments:

- There will be weekly assignments. The problem sets will be posted on WeBWork and can be accessed through D2L course site.
- Solutions of the assignments will be released immediately following the due dates, automatically by the WeBWork. For this reason, no late assignments will be accepted, and no request for assignment extension will be granted, under **ANY** circumstance.
- Students are expected to do their assignments **independently**. Plagiarism will be disciplined according to university regulations.

Exams:

- Exam 1 (on WeBWork) is scheduled on **Monday Mar. 1 (Lecture Hour)**
- Exam 2 (on WeBWork) is scheduled at the end of the semester. Date and time to be determined.

Tentative Schedule (Subject to Change):

Lecture	Date	Content	Assignments
1a	Mon. Jan. 11	7.1-2 Vectors in R2 and R3	Assignment 1 (Due: Jan. 22)
1b	Wed. Jan. 13	7.3 Dot Product	
1c	Fri. Jan. 15	7.4 Cross Product	
2a	Mon. Jan. 18	7.5 Lines and Planes in R3	Assignment 2 (Due: Jan. 29)
2b	Wed. Jan. 20	7.6 Vector Spaces	
2c	Fri. Jan. 22	7.7 Gram-Schmidt Orthogonalization	
3a	Mon. Jan. 25	8.1 Matrix Algebra	Assignment 3 (Due: Feb. 5)
3b	Wed. Jan. 27	8.2 System of Linear Equations	
3c	Fri. Jan. 29	8.3 Rank of a Matrix	
4a	Mon. Feb. 1	8.4-5 Determinant	Assignment 4 (Due: Feb. 12)
4b	Wed. Feb. 3	8.6 Inverse Matrix	
4c	Fri. Feb. 5	8.7 Cramer's Rule	
5a	Mon. Feb. 8	8.8 Eigenvalues	Assignment 5 (Due: Feb. 19)
5b	Wed. Feb. 10	8.9 Power of Matrix	
5c	Fri. Feb. 12	8.10 Orthogonal Matrix	
	Feb. 15 - 19	Study Break	
6a	Mon. Feb. 22	8.11-12 Diagonalization	Assignment 6 (Just for Practice)
6b	Wed. Feb. 24	*8.13 LU-Factorization	
6c	Fri. Feb. 26	Ch1. Basic Concepts in Statistics	Assignment 7 (Due: Mar. 12)
7a	Mon. Mar. 1	Midterm Exam	
7b	Wed. Mar. 3	2.1-4 Tables and Charts	
7c	Fri. Mar. 5	2.5-7 Descriptive Statistics	
8a	Mon. Mar. 8	3.1-2 Sample Space and Event	Assignment 8 (Due: Mar. 19)
8b	Wed. Mar. 10	3.3-5 Introduction to Probability	
8c	Fri. Mar. 12	3.6-7 Conditional Probability	
9a	Mon. Mar. 15	4.1&4 Discrete RV and Distribution	Assignment 9 (Due: Mar. 26)
9b	Wed. Mar. 17	4.2-3 Binomial and Hypergeometric	
9c	Fri. Mar. 19	4.7-8 Poisson and Geometric	
10a	Mon. Mar. 22	5.1&4 Continuous RV and Distribution	Assignment 10 (Due: April 2)
10b	Wed. Mar. 24	5.2-3 Normal	
10c	Fri. Mar. 26	5.5-9 Uniform and Exponential	
11a	Mon. Mar. 29	6.1-3 Sample Mean Distribution	Assignment 11 (Due: April 9)
11b	Wed. Mar. 31	7.1-3 Estimate Population Means	
11c	Fri. April. 2	7.5-7 Hypothesis Testing Regarding Mean	
12a	Mon. April 5	Compare two means	Assignment 12 (Just for practice)
12b	Wed. April 7	11.1-2 Simple Linear Regression	
12c	Fri. April 9	11.6 Correlation	
		TBD	