



**MATH 474 Section 02**  
**Section Syllabus (Jan 5<sup>th</sup> Version)**  
**Probability and Statistics, Spring 2024**

Instructor: [Dr Kiah Wah Ong](#)

Email: [kong2@iit.edu](mailto:kong2@iit.edu)

Office: RE 220

Kiah's office hours: Tue Wed 3:30-4:30pm

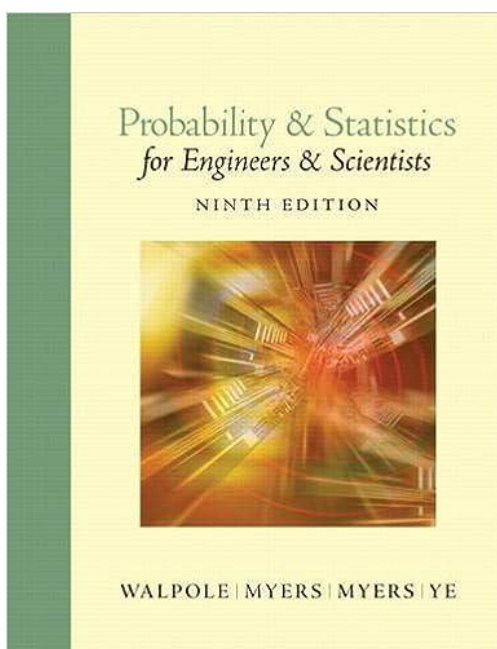
TA/Grader name: Ashlesh Khajbage

Email: [akhajbage@hawk.iit.edu](mailto:akhajbage@hawk.iit.edu)

TA Office hours: TBD

**This class will be in-person.** The class will have NO recording.

**1. Textbook**

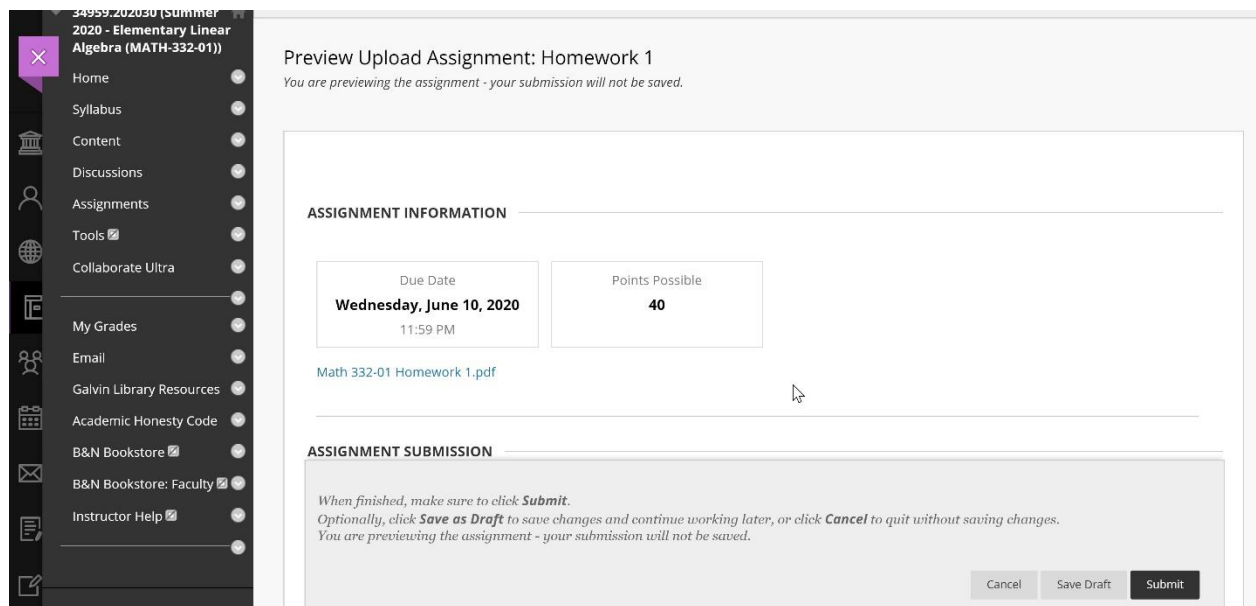


**Walpole, Meyers, Meyers, Ye, Probability and Statistics for Engineers and Scientists, 9th ed., Prentice Hall**

- 2. Homework:** Written homework will be assigned every week starting week 2, and due on Friday by midnight. Homework will be posted on Blackboard and submitted on Blackboard. See item 3 below.

### 3. Submitting Materials Online

- (i) All materials that need to be submitted online must be in PDF file (and PDF file ONLY).
- (ii) If the material you want to submit has multiple pages, please scan those pages and convert them into a SINGLE pdf file.
- (iii) If you have a scanner, then the process of scanning and converting the material into PDF is easy. Otherwise see (iv) and (v) below.
- (iv) If you have a phone that can take pictures. One good solution is to have an app that can edit/convert the pictures. I recommend [Genius Scan](#) (free version should be enough)
- (v) If you have an iPhone, you can scan a document and convert it into a PDF file very easily. Please look it up or ask me.
- (vi) All materials which need to be graded should be submitted through Blackboard.
- (vii) Submission will be through "Assignments" on Blackboard. For example



- (viii) For multiple-choice questions in Quizzes or Tests, where work is not graded, you can use "Text Submission" to write down your answer (as a row or column), for example:

Quiz 3:

(1) A (2) A (3) C (4) E ... and so on.

### 4. Assessments and Grades

Assessments:

Homework	30%
Midterm	30%
Midterm	40%

Grading:

A	90-100	Excellent
B	74-89	Above Average
C	60-73	Average
D	50-59	Below Average
E	0-49	Fail

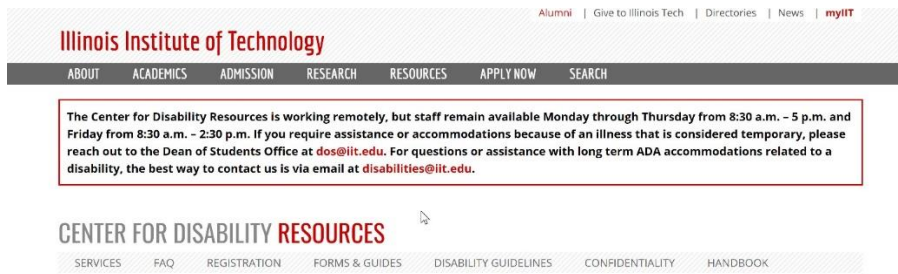
## 5. Math Department Virtual and In-Person Math Tutoring Center

- (i) This is a place where you can get help from the TAs from the math department.
- (ii) They are the PhD students in Mathematics. Check out their schedule and you can connect with them during the day. Our class TA will also hold his/her office hour there. More information on our class TA when I have them.



You can also go to ARC for help.

## 6. Disability assistance:



Reasonable accommodations will be made for students with documented disabilities. In order to receive accommodations, students must obtain a letter of accommodation from the Center for Disability Resources and make an appointment to speak with me as soon as possible.

## 7. Academic Integrity:

Department of Applied Mathematics takes academic integrity very seriously. The usual penalty for a student caught cheating includes an E in the course. Further penalties may include probation, suspension, or expulsion from the university.

## 8. Class Tentative Schedule

Time	Topic/Activities
Week 1	Introduction to Statistics and Probability
Week 2	Probability of Events and Counting Principals
Week 3	Conditional Probability, Independence and Laws of Probability
Week 4	Random Variables, Discrete Random Variables and Their Distributions
Week 5	Expected Values of a Discrete Random Variable, Special Discrete Distributions
Week 6	Continuous Random Variables, Their Distributions and Expected Values
Week 7	Special Continuous Distributions
Week 8	Moment Generating Functions
Week 9	Midterm, Distribution of Sample Mean
Week 10	Central Limit Theorem and Law of Large Numbers
Week 11	Three Distributions Related to Sample Variance
Week 12	Point Estimation and minimum variance unbiased estimators
Week 13	Single Sample Estimation
Week 14	Two Samples Estimation
Week 15	Tests on a Single Mean and Two Means
Week 16	Tests on Variances, Review