

Class Information Math10120 Fall 2021

(web-links are shown in blue)

WEBSITE: <http://www3.nd.edu/~apilking/Math10120/>

CLASS TIME/LOCATION:

	Instructor	Time	Location
Section 01	Annette Pilkington	10:30 - 11:20 a.m.	Hayes-Healy 231

INSTRUCTOR INFORMATION:

Instructor	Office	Phone	email	Office Hours
Annette Pilkington	Hayes-Healy 242	631-3369	Pilkington.4@nd.edu	TBA

TEXT: *Finite Mathematics, 8th Edition, Rolf, with access to online homework.* It is best to buy one of the e-book/homework access options (see more information under the link [Book/Access Code Information](#)), and if you want a hard copy; rent it or buy a used copy.

EXAMS: Three 75 minute exams will be given during the semester.

	Exam 1	Exam 2	Exam 3	Final Exam
Time and Date	8-9:15 a.m. Thur. Sept 16	8-9:15 a.m. Tue. Oct 12	8-9:15 a.m. Tue. Nov. 16	1:45-3:45 p.m. Fri. Dec. 10
Points	100	100	100	150
	123 Nieuwland Science	123 Nieuwland Science	123 Nieuwland Science	TBA

The Final Exam will be comprehensive.

QUIZZES (50 POINTS): Five quizzes will be given in class throughout the semester. There will be no make-up quizzes. If you have an excused absence(with proper documentation), the average of your other quiz scores will be used to replace the missing quiz at the end of semester. Please see the [class day-by-day schedule](#) or the link [Quizzes](#) on the website for quiz dates.

HOMEWORK(100 POINTS): Homework will be assigned electronically. Details on how to register are included on a separate sheet, you are encouraged to register and complete homeworks 1 and 2 as soon as possible. You will need to purchase an access code before the two week grace period for online homework expires in order to save the work you have done and to continue using the system. Please read the directions on our website under [Book/Access Code Information](#) before you make your purchase. Once you have the access code, you should enter the details in the online homework system.

GRADES: A total of 600 points will be distributed as indicated above:

Homework 100/600 (16.67%) Quizzes : 50/600 (8.33%),
Exams 1-3: 300/600 (50%), Final Exam: 150/600 (25%).

EXAM REVIEWS: We will review in class on the day before each exam. An evening review/Q&A session via Zoom will also be conducted before each exam. Details are given on our webpage under [Exams:Info/Locations/Dates/Reviews](#).

HELP: Help is available from a number of sources. Details will appear on the website under the [Tutorials/Help](#) button on the webpage as soon as they are available

1. Office Hours (see above),
2. Help buttons on online homework
3. Tutorials [not mandatory] (see below) .

	Tutor	Time	Location
All Sections	Claire Kloska	TBA	TBA
All Sections	Claire Kloska	TBA	TBA

HOMEWORK POLICY: You will find a complete list of **electronic homework** due dates attached. Note **ALL DEADLINES ARE AT 2:00 A.M. ON THE DUE DATE**. Effectively this means that the homework is due on the previous night with 2 hours grace. The first homework, due on Aug. 26 at 2:00 a.m., is essentially a tutorial on how to use the system. It will not be part of your final grade, but you are expected to get started on it right away, so that you can iron out any problems you might have with the system before the end of week 1.

The availability and due dates of all homework allow ample time for completion. Submission of homework can be carried out with any internet connection at any time. Therefore **late homework will not be accepted**. It is expected that you will start your homework well before the time at which it is due and that if you have to be out of town, you will plan ahead appropriately. In the case of extenuating circumstances, you should get a note from the dean of First Year of Studies or your advisor in order to get credit. Poor time management, a lapse of memory about the 2:00 a.m. deadline for online homework, or a prearranged trip off campus, for any event will not be considered as extenuating circumstances. If your computer is not working please use one of the many computers available on campus. The online system keeps a complete record of the time you spend online and automatically saves your work. If you are having any trouble with the system mysteriously not giving you credit for your work, Please print out your completed work as you do your homework and bring it to class, show it to your instructor in person and they will give you credit.

MAKE-UP EXAMS: Please check the exam dates. **Do not make travel plans conflicting with any exam date!** In the event that you miss an exam, a note from your advisor or a dean from First Year of Studies will be required in order to gain credit for the make-up exam.

Please send an e-mail to your instructor as soon as possible if you miss an exam.

- If you qualify for a make up exam, it may be run as a proctored exam or it may involve giving you the average of your other exam grades in the course, depending on factors such as whether your instructor has time to create a make-up exam or whether we can find a common time and proctors to administer a second exam.
- Make up exams may differ in format than the original exam, they may consist only of multiple choice questions.
- Sometimes instructors are lenient if you miss an exam for a foolish reason such as your alarm clock not going off. If at all such leniency will only be extended once, that is, if you miss an exam because you overslept more than once, you will not get credit for the second exam.

EXAM CONFLICTS: The Tues/Thurs 8 am exam schedule is known for all your courses. Check for any conflicts and let your instructors and advisor know about conflicts well in advance. The date of the final is known. You can find dates and the rules for what constitutes a final conflict [Here](#).

- If you have three or more finals in one day, or 4 or more finals in a 24 hour period, you may negotiate to change the time of one of these finals. If you intend to request to have the time of

your Math 10120 final changed, you must talk to your dean(or the dean's designee) at least one week before the start of the final exam period (see section 3.2.2.4 of the [undergraduate academic code](#)). If you have a conflict on finals week, please make sure that you are available to take the exam in the make-up slot; Thurs. Dec. 16 from 4:15 p.m. to 6:15 p.m..

- You must also contact your dean to resolve exam conflicts during semester, since the dean's office will have access to the number of students in the conflicted classes which dictates which class gives the make-up exam.
- If you are an **athlete**, make sure that you check for exam conflicts with your athletic schedule for the semester and let your athletic advisor know about such conflicts so that they can arrange to have someone from the athletic department attend the meet to proctor the exam.

HONOR CODE: You may discuss homework with your classmates. However it is obviously a violation of the [Honor Code](#) to have someone complete your homework for you. Claiming to have completed coursework, when in fact you have not, is clearly a violation of the honor code. You will not be allowed to collaborate on exams or quizzes. Calculators will be allowed for exams and quizzes. Copying during an exam or consulting resources other than your calculator is obviously a violation of the honor code, as is altering an exam and claiming points for the alterations.

ADDITIONAL ISSUES: To do well in this course it is necessary to complete a substantial portion of the assigned work. Homework and quizzes constitute 25% of your grade. If you only do the exams, you are limited to a maximum of 450 points out of 600 (75%) which is a solid C.

If you feel you need non-standard accommodations to complete exams, homework or other aspects of the course because of some disability, this must be handled through the [Sara Bea Learning Center for Students with Disabilities](#). *This must be done at the start of the semester.*

If personal issues arise in your life which require non-standard accommodations you should first talk to your advisor who will consult with your instructor as to how to proceed. *This should be done as soon as you know there is going to be a problem.*

CHANCE AND STRATEGY: This course is designed to help students explore the everyday notions of chance and strategy through the language and methods of mathematics. We bring clarity and precision to our use of these concepts through the language and tools of mathematics. By understanding these basic concepts fully, the student should build confidence in their ability to analyze chances and strategies in everyday life. The main topics covered in the course are counting, probability and a little basic statistics, linear programming and some game theory. A detailed, syllabus and homework schedule appears below and more information appears on the website.

Schedule Math10120 Fall 2021

Date	Day	Section	Topic
08/23	Mon.	6.1	Class Info/Sets
08/25	Wed.	6.1	Sets
08/27	Fri.	6.2	Counting elements of a set with Venn Diagrams.
08/30	Mon.	6.2/6.3	Inclusion exclusion principle/Counting Principles.
09/01	Wed.	6.3	Counting Principles
09/03	Fri.	6.4	Permutations
09/06	Mon.	6.5	Combinations.
09/08	Wed.	6.6	A mixture of counting problems
09/10	Fri.	6.6	A mixture of counting problems Quiz 1
09/13	Mon.	7.1	Introduction to Probability
09/15	Wed.		Review For Exam 1
09/16	Thurs.	Exam 1	8-9:15 a.m.
09/17	Fri.	7.1/7.2	Introduction to Probability/Equally Likely Outcomes
09/20	Mon.	7.2	Equally Likely Outcomes
09/22	Wed.	7.3	Compound Events, Union, Intersections and Complements.
09/24	Fri.	7.4	Conditional Probability.
09/27	Mon.	7.4/7.5	Conditional Probability/Independence
09/29	Wed.	7.5	Independence
10/01	Fri.	7.6	Bayes Theorem. Quiz 2
10/04	Mon.	8.1	Frequency Distributions.
10/06	Wed.	8.2	Measures of Central Tendency.
10/08	Fri.	8.3	Measures of dispersion.
10/11	Mon.		Review for Exam 2
10/12	Tue.		Exam 2 8-9:15 a.m.
10/13	Wed.	8.4	Random Variables and Probability Distributions.
10/15	Fri.	8.4/8.5	Random Variables/Expected Values

10/18	Mon.		Fall Break
10/19	Tue.		Fall Break
10/20	Wed.		Fall Break
10/22	Fri.		Fall Break
10/25	Mon.	8.5	Expected value of a random variable.
10/27	Wed.	8.5/8.6	Expected value/Bernoulli/Binomial
10/29	Fri.	8.6	Bernoulli Experiments/Binomial Distribution. Quiz 3
11/01	Mon.	8.7	Normal Distribution.
11/03	Wed.	8.7	Normal Distribution.
11/05	Fri.	3.1	Linear Inequalities in two variables.
11/08	Mon.	3.2	Solution system of inequalities.
11/10	Wed.	3.3	Linear Programming.
11/12	Fri.	3.3	Linear Programming. Quiz 4
11/15	Mon.		Review for Exam 3
11/16	Tue.		Exam 3
11/17	Wed.	Supplementary Notes	Matrices
11/19	Fri.	9.1	Two person Games.
11/22	Mon.	9.1	Two person Games.
11/24	Wed.		Thanksgiving
11/26	Fri.		Thanksgiving
11/29	Mon.	9.2 and supplementary notes	Mixed strategy games/ expected pay-off.
12/01	Wed.	9.2 and supplementary notes	Optimal Mixed Strategy.
12/03	Fri.	9.2 and supplementary notes	Optimal Mixed Strategy. Quiz 5
12/06	Mon.		Review for Final
12/10	Fri.		Final Exam 1:45- 3:45 P.M.

HW Schedule, Math 10120, Fall 2021			
Days covered in class	Assignment	Appears	Due
-	Entering Math Answers in EWA	08/23	Thur. 08/26 2:00 A.M.
08/23 Mon.- 08/25 Wed.	Section 6.1, Sets	08/23	Mon. 08/30 2:00 A.M.
08/27 Fri.- 08/30 Mon.	Section 6.2, Venn Diagrams	08/25	Thur. 09/02 2:00 A.M.
08/30 Mon. - 09/01 Wed.	Section 6.3, Counting Principles	08/27	Mon. 09/06 2:00 A.M.
09/03 Fri.	Section 6.4, Permutations	09/01	Thurs. 09/09 2:00 A.M.
09/06 Mon.	Section 6.5, Combinations	09/03	Mon. 09/13 2:00 A.M.
09/08 Wed. - 09/10 Fri.	Section 6.6, Mixed Counting	09/06	Wed. 09/15 2:00 A.M.
09/13 Mon.	Section 7.1, Intro to Probability	09/10	Mon. 09/20 2:00 A.M.
09/17 Fri. - 09/20 Mon.	Section 7.2, Equally Likely Outcomes	09/13	Thurs. 09/23 2:00 A.M.
09/22 Wed.	Section 7.3, Compound Events	09/20	Mon. 09/27 2:00 A.M.
09/24 Fri. - 09/27 Mon.	Section 7.4, Cond. Prob.	09/22	Thurs. 09/30 2:00 A.M.
09/27 Mon.-09/29 Wed.	Section 7.5, Independence	09/24	Mon. 10/04 2:00 A.M.
10/01 Fri.	Section 7.6, Bayes' Rule	09/29	Thur. 10/07 2:00 A.M.
10/04 Mon.	Section 8.1, Freq. Dists.	10/01	Mon. 10/11 2:00 A.M.
10/06 Wed.	Section 8.2, Central Tendency	10/04	Thurs.10/14 2:00 A.M.
10/08 Fri.	Section 8.3, Var. and St. Deviation	10/06	Mon. 10/25 2:00 A.M.
10/13 Wed. - 10/15 Fri.	Section 8.4, Random Variables	10/11	Thur. 10/28 2:00 A.M.
10/15 Fri.- 10/27 Wed.	Section 8.5, Expected Value	10/13	Mon. 11/01 2:00 A.M.
10/27 Wed. - 10/29 Fri.	Section 8.6, Binomial Dist.	10/25	Thurs. 11/04 2:00 A.M.
11/01 Mon. - 11/03 Wed.	Section 8.7, Normal Dist.	10/29	Mon. 11/08 2:00 A.M.
11/05 Fri.	Section 3.1, Lin. Inequalities	11/03	Thurs. 11/11 2:00 A.M.
11/08 Mon.	Section 3.2, Feasible Sets	11/05	Thur. 11/15 2:00 A.M.
11/10 Wed. - 11/12 Fri	Section 3.3, Linear Programming	11/08	Mon. 11/18 2:00 A.M.
11/19 Fri - 11/22 Mon.	Section 9.1, 2-person Games	11/17	Thurs. 12/02 2:00 A.M.
11/29 Mon. - 12/03 Fri.	Section 9.2, Games, Mixed St.	11/29	Mon. 12/06 2:00 A.M.