

University of New Haven

COLLEGE OF ARTS & SCIENCES

Department of Math and Physics

MATH 3371 - 01 Probability & Statistics I Fall 2019 Meeting Times and Location(s): TR - 12:15 PM 01:30 PM - ECHL 112 Credit Hours: 3 Faculty Contact Information: Phanuel Mariano, Ph.D. – Assistant Professor Office Location MAXCY 320 Phone: TBD, see website Email: <u>PMariano@newhaven.edu</u> Office Hours: Monday: 11:00am-12:00pm and 3:00pm-4:00pm, Tuesday/Thursday: 9:30am-10:45am <u>MGriffiths@newhaven.edu</u>

Department Chair: Matthew Griffiths

COURSE SYLLABUS

Course Description

Axiomatic study of probability: sample spaces, combinatorical analysis, independence and dependence, random variables, distribution functions, moment generating functions, central limit theorem.

Required Text(s)/Materials/Supplies

Textbook and Lecture Notes will be available on the course website.

Upper level undergraduate probability with actuarial and financial applications by Bass et. al.

Probability Theory Lecture Notes by P. Mariano

Course Objectives

1. To be able to calculate the probability of an event and use the central limit theorem to approximate probabilities.

Student Learning Outcomes

- 1. The student at the end of the course should be able to apply probabilistic thinking to solve problems in their chosen field.
- The student will learn several discrete and continuous distributions and use them in applications.
- 3. The student will be able to use theoretical probability to come up with their own probabilistic models that solve real world problems.

Course Requirements & Assessment

Homework: There will be assigned required homework, but it will not be collected. Homework is a very important part of any math class. HW is the place to make mistakes and where student applies what they have learned in class. Please come see me right away if you have any questions on the homework.

Quiz: There is a Quiz at the end of every first class of any given week. They cover the material I went over from the previous week. The quiz problems will come directly from the Homework problems, so there should be no surprise. The goal of the quizzes is to give you a quick check of understanding and where I can give you feedback. This is why it's important that you really understand the homework problems and take them seriously. If you are struggling with the homework, please don't be shy and come see me during my office hours. I am here to help. If office hours don't work for you, then please contact me to set up a meeting.

Exams: There will be 2 midterm exams and a final. For more details please see the course website: <u>http://math.newhaven.edu/pmariano/MATH3371f19.html</u>

Expectations

This course will require significant in-class and out-of-class commitment from each student. The University estimates that a student should expect to spend two hours outside of class for each hour they are in a class. (For example, a three-credit course would average six [6] hours of additional work <u>outside</u> of class.)

Missed Work Statement

I do not accept any late work or allow make up quizzes/exams (unless you have a very good reason!), but keep in mind that everybody will get at least 2 quizzes dropped. So don't worry if you miss one since everyone has 2 freebies.

An excused absence (such as a note from Health Services or a healthcare provider) will be required before you can make up a missed quiz or exam.

Learning Toolbox

I will be using exclusively the course website to post Course outline/Notes/Homework/Tools: http://math.newhaven.edu/pmariano/MATH3371f19.html

Grading

Grades earned are based on your performance on quizzes, exams and the final exam.

Quizzes	% 20
Exam 1	% 25
Exam 2	% 25
Final Exam	% 30
Total*	100%

Final Grades are assigned with the following scale:

Undergraduate Scale				Graduate Scale			
Grades Scored			Letter Equivalent	Grades Scored Between		cored Between	Letter Equivalent
Between							
97	to	100	A+	97	to	100	A+
93	to	Less than 97	А	93	to	Less than 97	А
90	to	Less than 93	A-	90	to	Less than 93	A-
87	to	Less than 90	B+	87	to	Less than 90	B+
83	to	Less than 87	В	83	to	Less than 87	В
80	to	Less than 83	В-	80	to	Less than 83	В-
77	to	Less than 80	C+	77	to	Less than 80	C+
73	to	Less than 77	С	73	to	Less than 77	С
70	to	Less than 73	C-	70	to	Less than 73	C-
67	to	Less than 70	D+			Less than 70	F
63	to	Less than 67	D				
60	to	Less than 63	D-				
		Less than 60	F				

Course Outline/Schedule

Please see our course website for a very detailed course outline: <u>http://math.newhaven.edu/pmariano/MATH3371f19.html</u>

The final exam must be given on the day and time assigned by the Office of the University Registrar. Please plan accordingly for travel, work, or appointments.

2019-2020 Academic Calendar

Note: The complete schedule for Fall 2019 and Spring 2020 is on the Academics tab of *my*Charger. To help with preparing your course outline, please refer to the Academic Calendar for major dates and deadlines. The link above also has a link to the exam schedule.

Disclaimer: I reserve the right to make changes to this syllabus as I see it for the progress of the learning process. These changes can include, for example, additions or removal of assessment components; dates of quizzes and exams; due dates of assignments; etc. I will inform the students about these changes in a timely manner through email and classroom announcements

UNIVERSITY POLICIES & ACADEMIC REGULATIONS

The Academic Regulations are available in the <u>Student Handbook</u>. Follow the link to view the policies. They are also available in the <u>Undergraduate</u> and <u>Graduate</u> Catalogs.

Add/Drop Policy

Choose the appropriate date for this course from the Academic Calendar.

<Day, Month/Date, Year> is the final day to drop this course so that it does not appear on your transcript. After the first week of class, self-service registration will not be enabled for students

to directly add or drop classes. Students should contact the registrar's office directly or the Academic Success Center for assistance with adding and dropping courses during this time.

Attendance Policies

Students are expected to attend regularly and promptly all their classes, appointments, and exercises. The instructor has the right to dismiss from class any student who has been absent more than two weeks (pro-rated for terms different from that of the semester). A dismissed student will receive a withdrawal (W) from the course if they are still eligible for a withdrawal per the university's course withdrawal policy, or a failure (F) if not. A student who is not officially registered in the course is not permitted to attend classes or take part in any other course activities. Students absent from any class meeting are responsible for making up missed assignments and examinations at the discretion of the instructor.

Religious Observance Policy for Students

The University of New Haven respects the right of its students to observe religious holidays that may necessitate their absence from class or from other required university-sponsored activities. Students who wish to observe such holidays should not be penalized for their absence, although in academic courses they are responsible for making up missed work.

Withdrawal from a Course

Tuesday, October 29 is the final date to request a withdrawal for this term. Students wishing to withdraw from a course **MUST** officially do so by completing the <u>online</u> form or by submitting a <u>course withdrawal form</u> to the registrar's office. This request must be submitted to the Office of the University Registrar (and signed by the International Services Office if you are an international student). The grade of **W** will be recorded, but the course will not affect the GPA.

Incomplete (INC) Grade Policy

A grade of Incomplete (**INC**) is given only in special circumstances and indicates that the student has been given permission by the instructor to complete required course work (with the same instructor) after the end of the term. In the absence of the instructor, a student should contact the Department Chair.

Academic Integrity Policy and Procedures

The University of New Haven expects its students to maintain the highest standards of academic conduct. Academic dishonesty is not tolerated at the University. To know what is expected of them, students are responsible for reading and understanding the statement regarding academic honesty in the <u>Student Handbook</u>. Please ask me about my expectations regarding permissible or encouraged forms of student collaboration if there is any confusion about this topic.

The <u>Dean of Students Office</u> offers a range of support to students. It answers questions, provides information about and referrals to campus resources; assists in students' adjustment to the University; promotes programs which address student needs, concerns and interests; and helps students in resolving problems of any type.

Commitment to Positive Learning Environment

The University adheres to the philosophy that all community members should enjoy an environment free of any form of harassment, sexual misconduct, discrimination, or intimate partner violence. If you have been the victim of sexual misconduct, we encourage you to report this. If you report this to a faculty/staff member, they must notify our college's Title IX coordinator about the basic facts of the incident (you may choose to request confidentiality from the University). If you encounter sexual harassment, sexual misconduct, sexual assault, or discrimination based on race, color, religion, age, national origin, ancestry, sex, sexual orientation, gender identity, or disability please contact the Title IX Coordinator, Caroline Koziatek, at (203) 932.7479 or ckoziatek@newhaven.edu. For more information visit Title IX at the University of New Haven.

Reporting Bias Incidents

At the University of New Haven, there is an expectation that all community members are committed to creating and supporting a climate which promotes civility, mutual respect, and open-mindedness. There also exists an understanding that with the freedom of expression comes the responsibility to support community members' right to live and work in an environment free from harassment and fear. It is expected that all members of the University community will engage in anti-bias behavior and refrain from actions that intimidate, humiliate, or demean persons or groups or that undermine their security or self-esteem. (Reporting Options)

UNIVERSITY SUPPORT SERVICES

The University recognizes that students can often use some help outside of class and offers academic assistance through several offices.

Center for Student Success (CSS)

The Center for Student Success provides students with a multitude of resources available on campus and assists students in fulfilling their educational, social and personal goals.

University Writing Center

The mission of the Writing Center (an expansion of the Writer to Writer peer-tutoring program) is to provide high-quality tutoring to undergraduate and graduate students as they write for a wide range of purposes and audiences. Tutors are undergraduate and graduate students studying Biology, Communications, Criminal Justice, National Security, Engineering, English, Environmental Science, Finance, Forensic Science, Legal Studies, Marine Biology, Music, Nutrition, and Psychology. We are here to work with you at any stage in the writing process; just bring in your assignment, your ideas, and any writing you've done so far. To make an appointment, you can register for an account with our scheduling site at https://newhaven.mywconline.com or visit us in person at our desk on the first floor of Peterson library (just to the left after you enter the library).

Center for Learning Resources (CLR)

The Center for Learning Resources (CLR), located in the Peterson Library, provides academic content support to the students of the University of New Haven using metacognitive strategies that help students become aware of and learn to apply optimal learning processes in the pursuit of creating independent learners. CLR tutors focus sessions on discussions of concepts and processes and typically use external examples to help students grasp and apply the material.

Accessibility Resources Center

Students with disabilities are encouraged to share, in confidence, information about needed specific course accommodations. The Accessibility Resources Center, located in Sheffield Hall, is responsible for and committed to providing services and support that serve to promote educational equity and ensure that students are able to participate in the opportunities available at the University of New Haven. Accommodations cannot be made without written documentation from the Accessibility Resources Center.

Counseling & Psychological Services

The Counseling Center offers a variety of services aimed at helping students resolve personal difficulties and acquire the balance, skills, and knowledge that will enable them to take full advantage of their experience at the University of New Haven.