

## Syllabus

STA 4321 Introduction to Probability

STA 5325 Fundamentals of Probability

Fall 2023

Department of Statistics, University of Florida

### Course information.

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<i>Lectures.</i>	Monday, Wednesday, and Friday 3:00–3:50 PM in LIT 0101		
<i>Instructor.</i>	Ekvall, Karl Oskar	<i>Teaching assist.</i>	Huang, Zhuochao
<i>office.</i>	103A Griffin–Floyd	<i>office.</i>	–
<i>email.</i>	k.ekvall@ufl.edu	<i>email.</i>	zhuochao.huang@ufl.edu
<i>office hours.</i>	Monday 2:00–2:50 PM (In office)	<i>office hours.</i>	–
	Friday 10:00–11:00 AM (Zoom : LINK)		–

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**Course objective.** The sequence of courses STA 4321–4322 (rep. 5325–5328) provides a formal and systematic introduction to mathematical statistics for students who have passed three semesters of standard undergraduate level calculus. STA 4321 and STA 5325 introduces the background in probability that is necessary to understand the classical statistical theory introduced in STA 4322 and STA 5328.

**Course topics.** Major topics include the basic formal elements of probability, discrete and continuous random variables, multivariate distributions, distributions of functions of random variables, and fundamental limit theorems.

**Prerequisites.** MAC 2313 (or equivalent third semester calculus course). It is typically very difficult to pass the course without a good understanding of calculus. A well-prepared student should have taken an introductory statistics course, such as STA 2023 or STA 3032.

**Course webpage.** Course materials (e.g., homework assignments and due dates) will be posted the course’s eLearning site (Canvas), where grades will also be posted. Please check this site regularly for updates and announcements. Course documents and important information will be posted there.

**Textbook.** Wackerly, Mendenhall, and Scheaffer, *Mathematical Statistics with Applications* (7th ed), Duxbury Press (Thomson Brooks/Cole Publishing), 2008.

- The textbook is not required but recommended.
- Exams will be based on material presented in lectures, which approximately corresponds to Chapters 1–7 of the textbook.

**Assessment.** Course grades will be based on 6 homework assignments and 3 in-class examinations. The final score (0–100) will be 0.7 times the average exam score plus 0.3 times the average of the 5 best homework assignment scores. Letter grades will be assigned based on the following cutoffs:

Grade	Percentile
A	100% - 93%
A-	93% - 90%
B+	90% - 87%
B	87% - 83%
B-	83% - 80%
⋮	⋮
D-	63% - 60%
F	60% -

The instructor may adjust cutoffs downward when assigning final course grades. Homework assignments will be submitted and graded electronically through the course eLearning site.

- *Tentative exam dates:*

1. Wednesday, Sep 27
2. Wednesday, Nov 1
3. Wednesday, Dec 6

- *Tentative homework due dates:*

1. Wednesday, Sep 6
2. Wednesday, Sep 20
3. Wednesday, Oct 11
4. Wednesday, Oct 18
5. Wednesday, Nov 15
6. Friday, Dec 1

- Any changes to the tentative dates will be announced in class or on the eLearning site.

**Missed exam or homework.** Missed exams and late homework assignments will receive a grade of zero, except in cases of emergency. If an exam or homework will be missed for a non-emergency reason, the student must notify the instructor *at least two weeks prior* to the exam date and provide proper documentation. When an exam is missed or a homework assignment is late for a medical reason, a doctor's note or equivalent documentation should be provided.