AMS 572 - Data Analysis 1

Fall 2022; 9:00 AM - 10:20 AM; Tue & Thu

Instructor Information

Instructor	Email	Office Location & Hours
Hyunwook Koh, Ph.D.	hyunwook.koh@stonybrook.edu	B521,1:00 PM - 5:00 PM; Mon & Wed (or by appointment)

Course Information

Course Description

Basic principles in statistical inference (parameter estimation and hypothesis testing). Survey of elementary statistical methods for comparing two samples. Procedures to verify underlying assumptions. Extensions to more complex situations (analysis of variance, analysis of categorical data, linear regression analysis.

Teaching Method (In-person/Online)

TBA

Textbook

"Statistics and Data Analysis" by Tamhane and Dunlop, 2ed edition, Pearson, 1999, ISBN: 9780137444267

"Applied Statistics and SAS Programming Language" by Jeffrey K. Smith, 5th edition, Pearson, 2005, ISBN: 9780131465329

"Mathematical Statistics and Data Analysis" by J.A. Rice, 3rd edition; Duxbury Advanced Series

Academic Integrity

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at http://www.stonybrook.edu/uaa/academicjudiciary/

School Policy on Attendance

1. If a student has over 20% unexcused absences, the student's final course grade will be an F.
2. Students should report the reason of absence to the professor in advance, or immediately after the absence.
3. When a student excuses his/her absence, the student must provide documentation of the reason for the absence to the professor.

4. The professor of the course reserves the right to excuse absences.
5. The professor may excuse the absence if the submitted documentation fulfills the following conditions: extreme emergences, severe medical reasons with doctor's note, very important events.

Critical incident Management

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn.

Course Evaluations

Stony Brook University values student feedback in maintaining the high-quality education it provides and is committed to the course evaluation process, which includes a mid-semester assessment as well as an end-of-the-semester assessment, giving students a chance to provide information and feedback to an instructor which allows for development and improvement of courses. Please click the following link to access the course evaluation system: http://stonybrook.campuslabs.com/courseeval/

Grading

Final grade = *f*(Attendance [10%] + Homework [10%] + Midterm [35%] + Final [45%]); ABCDF grading; 3 credits

Total score	Final grade
94 - 100	A
90 - 93	A-
87 - 89	B+
84 - 86	B
81 - 83	B-
78 - 80	C+
75 - 77	C
72 - 74	C-
69 - 71	D+
66 - 68	D
61 - 65	D-
≤ 60	F

Tentative Course Schedule

No.	Date	Topic	Homework
1	Aug 30	Limit Theorem	TBA
2	Sep 1	Limit Theorem	TBA
3	Sep 6	Distributions Derived from the Normal Distribution	TBA
4	Sep 8	Distributions Derived from the Normal Distribution	TBA
5	Sep 13	Survey Sampling	TBA
6	Sep 15	Survey Sampling	TBA
7	Sep 20	Estimation of Parameters and Fitting of Probability Distributions	TBA
8	Sep 22	Estimation of Parameters and Fitting of Probability Distributions	TBA
9	Sep 27	Estimation of Parameters and Fitting of Probability Distributions	TBA
10	Sep 29	Testing Hypotheses and Assessing Goodness of Fit	TBA
11	Oct 4	No class (Correction day)	
12	Oct 6	Testing Hypotheses and Assessing Goodness of Fit	TBA
13	Oct 11	Testing Hypotheses and Assessing Goodness of Fit	TBA
14	Oct 13	Review	
15	Oct 18	Midterm	
16	Oct 20	Summarizing Data	TBA
17	Oct 25	Summarizing Data	TBA
18	Oct 27	Comparing Two Samples	TBA
19	Nov 1	Comparing Two Samples	TBA
20	Nov 3	The Analysis of Variance	TBA
21	Nov 8	The Analysis of Variance	TBA
22	Nov 10	The Analysis of Variance	TBA
23	Nov 15	The Analysis of Variance	TBA
24	Nov 17	The Analysis of Categorical Data	TBA
25	Nov 22	The Analysis of Categorical Data	TBA
26	Nov 24	The Analysis of Categorical Data	TBA
27	Nov 29	Linear Regression	TBA
28	Dec 1	Linear Regression	TBA
29	Dec 6	Review	
30	Dec 8	No Class (Correction Day)	
31	Dec 15	Final	

Exam Schedule

Date	Subject
Oct 18	Midterm
TBA	Final