

The University of Western Ontario
King's University College
SS1024b - Introduction to Statistics (Winter 2009)

<u>Instructor</u>	<u>E-mail</u>	<u>Office</u>	<u>Section</u>	<u>Day</u>	<u>Time</u>	<u>Location</u>
Prof. X. Jiang	xjiang32@uwo.ca	LH205	570	M	11:30- 1:30	KC-LH101
Prof. D. Bellhouse	bellhouse@stats.uwo.ca	WSC229	001	W	11:30-12:30	KC-LH101
Prof. R. Kulperger	rjk@stats.uwo.ca	WSC231	002	MWF	11:30-12:30	B&GS 0165
Prof. D. Bellhouse	bellhouse@stats.uwo.ca	WSC229	003	Thursday	7:00-10:00	B&GS 0165
Prof. D. Bellhouse	bellhouse@stats.uwo.ca	WSC229	003	MWF	3:30-4:30	B&GS 0165

Office Hours As scheduled by each instructor.

Course Information Course website: www.stats.uwo.ca/courses/ss1024a

Pre-requisites Any OAC or Grade 12U Mathematics or Mathematics 0110a/b or former Mathematics 017 a/b. You are responsible for ensuring that you have successfully completed all course prerequisites.

Anti-requisites All other courses or half-courses in Introductory Statistics, except Statistical Sciences 1023 a/b. You are responsible for ensuring that you have successfully completed all course prerequisites and that you have not taken an anti-requisite course.
You will not receive credit if you lack a pre-requisite or have taken an anti-requisite course unless you have written special permission to enrol in the course.

Textbook/Materials

The Basic Practice of Statistics (4th ed. or 5th ed.), David Moore. A hand-held (NON programmable) calculator is needed for tests and exams. Note that both 4th and 5th editions are available; either edition is acceptable.

Course Outline

By the end of the course the student should have a basic understanding of the techniques used in exploring, organizing and describing data; producing data through surveys and experiments; random behavior; and statistical inference: confidence interval construction, tests of hypotheses.

The latest printing of the text includes a CD that can optionally be used for additional course material review and to help analyze data.

Evaluation

Your final mark will be determined using the better of the following two marking schemes:

	Scheme 1	Scheme 2
In class Pop Quizzes	5%	5%
Better of Test 1 and Test 2	25%	20%
Worse of Test1 and Test 2	20%	15%
Final Exam	50%	60%

Term Tests

There will be two multiple choice tests. These tests are *not* cumulative. There will be no make-up tests. For those that do legitimately miss a test and provide the required supporting documentation, the mark on that test will be taken from the final exam for the purposes of determining your final grade. Students should bring calculators to tests. All tables needed and some formulas will be provided on tests. Students will be notified in class in advance of each test which formulas will be provided.

	Date	Time	Locations
Term Test 1	Saturday, October 17	2:00 – 4:00 p.m.	TBA
Term Test 2	Saturday, November 14	2:00 – 4:00 p.m.	TBA

Final Exam

The final exam will be a three-hour multiple choice final examination (**cumulative**) in December as scheduled by the Registrar.

Missed Tests :

If a student is unable to meet a course requirement due to illness or other serious circumstances, the student must provide valid medical or other supporting documentation to the Dean's office as soon as possible and contact his or her instructor immediately. It is the student's responsibility to make alternative arrangements with his or her instructor once the accommodation has been approved and the instructor has been informed. In the event of a missed final exam, a "Recommendation of Special Examination" form must be obtained from the Dean's Office immediately. For further information please see: <http://www.uwo.ca/univsec/handbook/appeals/medical.pdf>

A student requiring academic accommodation due to illness, should use the Student Medical Certificate when visiting an off-campus medical facility or, request a Records Release Form (located in the Dean's Office) for visits to Student Health Services. The form can be found here: https://studentservices.uwo.ca/secure/medical_document.pdf

Optional Assignments

Assignments will be posted on our course website. Doing these assignments is strongly recommended as they will help in learning the course material and are a source of extra practice questions. The assignments are not to be handed in and no marks will be allocated for them. The solutions will be posted on our website as well.

Attendance

Content, emphasis, etc. of the course is defined by means of the lectures – and *not just only the text*. It is important to attend all lectures, as there is normally no simple way to make up for missed lectures. Classroom attendance is viewed as a very important part of the learning process. Students are advised that excessive absenteeism may result in the student being disbarred from the final exam (see Western Academic Calendar 2009-10, page 38). Attendance may be taken periodically and used to adjudicate border line cases. **Additionally, there will be some in class pop quizzes that will count towards 5% of your course grade.**

Classroom Environment

The Department of Statistical and Actuarial Sciences has adopted a “Mutual Expectations” policy governing the classroom environment and all work submitted by students. The full text of the policy can be found on the department web page (www.stats.uwo.ca) under the “Undergraduate” section. In summary, the policy was developed under the premise that all interactions between students and faculty should be governed by the principles of courtesy, respect, and honesty.

Students will be encouraged to ask questions in the class. Unnecessary talking among the students will, however, be discouraged. Cell phones, pagers, etc. must be switched off during the class. Students are expected to be on time to avoid disruptions to the lectures.

Help Services

The Statistics Help Centre is located in Western Science Centre Room 250. Help is available for students on main campus. Graduate teaching assistants will provide help from Monday through Friday. Please follow the link (<http://www.stats.uwo.ca/ugstudies/statshelp.htm>) for the latest schedule.

Need a tutor? There is also a tutor referral service at <http://www.stats.uwo.ca/trs.htm>.

Email Policy

You are welcome to communicate with us by e-mail. However, e-mail should be used only to provide us with information or to ask an important question that requires a brief response. Response time to the email may be up to one working day. For more lengthy discussions, you should visit our office during the office hours or make an appointment to see us. Should you decide to send us an e-mail, please remember that we will only read e-mails sent from your UWO student account. E-mails from other accounts (e.g. hotmail, yahoo, etc.) will not be read.

Approximate Weekly Lecture and Suggested Text Exercises

4th Edition

Week	Date	Chapter	Suggested Exercises
1	Sep 10-11	Course Intro and Overview	
2	Sep 14-18	Chap 1: Pictures Dist with Graphs	1.1, 1.5, 1.9, 1.11, 1.13, 1.15, 1.17, 1.23, 1.27, 1.29, 1.39
		Chap 2: Desc. Distribns with #s	2.3, 2.7, 2.9, 2.11, 2.13, 2.15, 2.17, 2.21, 2.27, 2.31, 2.35, 2.43
3	Sep 21-25	Chap 3: The Normal Dist	3.1, 3.3, 3.7, 3.9, 3.11, 3.13, 3.27, 3.31
		Chap 4: Scatter and Correlation	4.1, 4.3, 4.6, 4.9, 4.11, 4.19, 4.21, 4.25, 4.31, 4.33, 4.35, 4.37
4	Sep 28- Oct 2	Chap 4: Scatter&Correlation (cont) Chap 5: Regression	5.1, 5.3(b), 5.4, 5.5, 5.7, 5.11, 5.24 (a,b), 5.25, 5.26, 5.29, 5.30, 5.31, 5.35, 5.40, 5.47, 5.49, 5.53
5	Oct 5-9	Chap 6: Two-Way Tables	6.1, 6.4, 6.7, 6.19, 6.21, 6.23, 6.24, 6.28, 6.29, 6.31
		Chap7: Review Ch.1-6	<i>It's a review chapter & students are advised to use it as a self-review</i>
		Chap 8: Prod Data: Sampling	8.1, 8.3, 8.4, 8.6, 8.10, 8.12, 8.14, 8.17, 8.18, 8.25, 8.27, 8.29, 8.30, 8.34, 8.35, 8.37, 8.40, 8.41, 8.44, 8.46, 8.49
6	Oct 12-16	Chap 9: Prod Data: Experiments	9.1, 9.2, 9.5, 9.6, 9.8, 9.9, 9.12, 9.13, 9.14, 9.25, 9.26, 9.27, 9.28, 9.29, 9.30, 9.33, 9.34, 9.37, 9.39, 9.40, 9.44, 9.46
		TEST REVIEW (CHAP 1-8)	
	Oct 17	TERM TEST 1	2:00 – 4:00 p.m., locations to be announced
7	Oct 19-23	Chap 10: Intro Probability	10.1, 10.4, 10.5, 10.6, 10.8, 10.10, 10.11, 10.13, 10.15, 10.16, 10.32, 10.37, 10.38, 10.39, 10.40, 10.45, 10.46, 10.48, 10.50
		Chap 12: General Rules of Prob (pp. 302-313)	12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 12.8, 12.9, 12.11, 12.27, 12.28, 12.33, 12.35, 12.39, 12.41
		Chap 11: Sampling Distributions (pp. 272-285)	11.3, 11.5, 11.8, 11.9, 11.12, 11.25, 11.28, 11.34, 11.36, 11.40, 11.41
8	Oct 26-30	Chap 11: Sampling Distributions	
		Chap 14: Confidence Intervals	14.2, 14.4, 14.7, 14.8, 14.11, 14.17, 14.22, 14.32, 14.34, 14.36, 14.37
9	Nov 2-6	Chap 15: Tests of Significance	15.1, 15.3, 15.8, 15.9, 15.12, 15.13, 15.15, 15.17, 15.18, 15.20, 15.22, 15.21, 15.24, 15.25, 15.36, 15.46, 15.31, 15.32, 15.29, 15.34, 15.49, 15.44, 15.52, 15.53
		Chap 16: Inference in Practice	16.15, 16.17, 16.34ab, 16.35
10	Nov 9-13	Chap 17: Review Ch. 8-16	<i>It's a review chapter & students are advised to use it as a self-review</i>
		Chap 18: Inference (Inf) about a Population (Pop'n) Mean	18.1, 18.2, 18.5, 18.6, 18.9, 18.34, 18.7, 18.8, 18.29, 18.22, 18.23, 18.24, 18.33, 18.26(c), 18.20, 18.19, 18.37
		TEST REVIEW (CHAP 9-16)	
	Nov 14	TERM TEST 2	2:00-4:00 p.m., locations to be announced
11	Nov 16-20	Chap 18: Inf. about a Pop'n Mean	
		Chap 19: Two Sample Prob.	19.1, 19.2, 19.3, 19.4, 19.7, 19.9, 19.41, 19.42
12	Nov 23-27	Chap 20: Info about a Pop'n Propn	20.1, 20.4, 20.6, 20.7, 20.9, 20.13, 20.23, 20.25, 20.26, 20.17, 20.28, 20.29, 20.40, 20.41, 20.43
13	Nov 30- Dec 4	Chap 21: Comp Two Proportions	21.1, 21.2, 21.6, 21.11, 21.25, 21.27, 21.22, 21.30, 21.24
14	Dec 9	REVIEW	

Approximate Weekly Lecture and Suggested Text Exercises 5th Edition

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2	Sep 14-18	Chap 1: Pictures Dist with Graphs	1.1, 1.5, 1.9, 1.11, 1.13, 1.15, 1.17, 1.24, 1.28, 1.29, 1.40
		Chap 2: Desc. Distribns with #s	2.4, 2.8, 2.10, 2.12, 2.15, 2.17, 2.19, 2.23, 2.29, 2.32, 2.36, 2.41
3	Sep 21-25	Chap 3: The Normal Dist	3.1, 3.3, 3.7, 3.9, 3.11, 3.13, 3.26, 3.29
		Chap 4: Scatter and Correlation	4.1, 4.3, 4.8, 4.11, 4.13, 4.21, 4.23, 4.31, 4.36, 4.39, 4.41, 4.43
4	Sep 28- Oct 2	Chap 4: Scatter&Correlation (cont)	5.1, 5.3(a), 5.4, 5.6, 5.8, 5.13, 5.27 (a,b), 5.28, 5.31, 5.32, 5.34, 5.36, 5.39, 5.42, 5.44, 5.48, 5.51
		Chap 5: Regression	
5	Oct 5-9	Chap 6: Two-Way Tables	6.1, 6.6, 6.18, 6.19, 6.20, 6.22, 6.24, 6.25, 6.31, 6.32
		Chap7: Review Ch.1-6	<i>It's a <u>review chapter</u> & students are advised to use it as a self-review</i>
		Chap 8: Prod Data: Sampling	8.1, 8.3, 8.7, 8.11, 8.13, 8.20, 8.23, 8.27, 8.29, 8.33, 8.37, 8.35, 8.40, 8.41, 8.42, 8.46
6	Oct 12-16	Chap 9: Prod Data: Experiments	9.1, 9.2, 9.5, 9.8, 9.10, 9.11, 9.15, 9.16, 9.19, 9.21, 9.25, 9.26, 9.27, 9.33, 9.34, 9.35, 9.37, 9.44, 9.45, 9.46, 9.49
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		Chap 12: General Rules of Prob (pp. 316-326)	12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 12.8, 12.9, 12.11, 12.27, 12.28, 12.31, 12.33, 12.38, 12.39
		Chap 11: Sampling Distributions	11.3, 11.5, 11.10, 11.12, 11.23, 11.24, 11.26, 11.27, 11.31, 11.32, 11.33
8	Oct 26-30	Chap 11: Sampling Distributions	
		Chap 14: Intro to Inference	14.1, 14.3, 14.6, 14.8, 14.11, 14.13, 14.14, , 14.15, 14.20, 14.22, 14.23, 14.24, 14.25, 14.26, 14.27, 14.28, 14.29, 14.30
9	Nov 2-6	Chap 14: Intro to Inference	14.34, 14.36, 14.37, 14.38, 14.42, 14.44, 14.48, 14.49, 14.54, 14.57
		Chap 15: Thinking about Inference	15.3, 15.5, 15.7, 15.12, 15.17, 15.23, 15.24, 15.37, 15.39, 15.49
10	Nov 9-13	Chap 16: Review Ch. 8-15	<i>It's a <u>review chapter</u> & students are advised to use it as a self-review</i>
		Chap 17: Inference (Inf) about a Population (Pop'n) Mean	17.1, 17.2, 17.5, 17.6, 17.7, 17.8, 17.9, 17.19, 17.21, 17.22, 17.23, 17.24, 17.29, 17.31, 17.36
		TEST REVIEW (CHAP 9-15)	
	Nov 14	TERM TEST 2	2:00-4:00 p.m., locations to be announced
11	Nov 16-20	Chap 17: Inf. about a Pop'n Mean	
		Chap 18: Two Sample Prob.	18.1, 18.2, 18.3, 18.4, 18.5, 18.10, 18.12, 18.17, 18.18, 18.19, 18.27, 18.28, 18.29
12	Nov 23-27	Chap 19: Info about a Pop'n Propn	19.1, 19.4, 19.5, 19.7, 19.10, 19.14, 19.20, 19.21, 19.22, 19.26, 19.36, 19.38, 19.39, 19.41
13	Nov 30- Dec 4	Chap 20: Comp Two Proportions	20.1, 20.2, 20.4, 20.13, 20.18, 20.20, 20.24, 20.26, 20.30, 20.33
14	Dec 9	REVIEW	