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**ECONOMICS 2B03: Analysis of Economic Data I**  
**Mo We Th 10:30-11:20 am, MDCL 1309**  
**Department of Economics**  
**McMaster University**  
**Fall 2019**

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- Contact information and office hours:

Professor .....	Dr. Jeffrey S. Racine
Office hours.....	Mo We Th 3:15-3:45 pm or by appointment
Office.....	KTH 431
Campus phone and voice mail..	905-525-9140 ext. 23825
e-mail .....	(before using kindly see e-mail use policy, item 2.)
COURSE URL .....	<a href="https://socialsciences.mcmaster.ca/racinej/2B03/">https://socialsciences.mcmaster.ca/racinej/2B03/</a>
PROFESSIONAL URL.....	<a href="https://socialsciences.mcmaster.ca/people/racinej">https://socialsciences.mcmaster.ca/people/racinej</a>

- Course Overview:

This course is designed to introduce you to a set of statistical techniques that are routinely used for the analysis of economic data, i.e., you will be exposed to fundamental methods used by economists to approach statistical problems. This course emphasizes the use of mathematics, statistics, and computers.

- Course Requirements:

- Problem sets.
- Midterm examinations.
- Final examination.

- Course Materials

- Recommended: *Introduction Practice of Statistics* by David S. Moore, George P. McCabe and Bruce A. Craig, Ninth Edition (2017), W H Freeman & Co. ISBN 9781319013622.

- Evaluation:

You will be evaluated on the basis of your performance on two mid-term examinations, assignments (roughly 4-5), and a final comprehensive examination. The weights assigned to each are as follows:

Assignments .....	20%
Mid-Term Examinations	40%
Final Examination .....	40%

The grades are assigned as follows:

A ...	80-100%
B ...	70-80%
C ...	60-70%
D ...	50-60%
F ...	<50%

- Brief Course Description (Chapters 1-10)

- Descriptive statistics
  - \* Frequency distributions
  - \* Measures of central tendency and dispersion
- Probability Theory
  - \* Discrete distributions
  - \* Binomial distribution
  - \* Continuous distributions
  - \* Normal distribution
- Sampling theory
  - \* Sampling distributions
  - \* Estimation
  - \* Confidence intervals
  - \* The  $t$ -distribution
  - \* The  $\chi^2$  distribution
- Hypothesis testing
  - \*  $t$ -tests of hypotheses involving two populations
  - \*  $\chi^2$  tests
- Regression analysis

- **Course Code of Conduct:** Please take note of the following:

1. **If you fail to show up for an exam or fail to turn in an assignment due to illness, you will receive a grade of zero for the missed work.** The only exception made for missed exams and late assignments is for documented **illness** (yours) or **bereavement** (others) **provided prior to the time of the examination or due assignment** (e.g, if the exam is scheduled for 10:30 a.m. on October 1, you must notify me *before* 10:30 a.m. on October 1). Notification will involve three things: i) the MSAF, ii) email to me, and iii) rescheduling, as follows:
  - (a) In addition to filling out the MSAF, you must notify me directly prior to the time the missed work is due (e-mail/telephone is perfectly acceptable for this purpose - see item 2.).
  - (b) You must also at the time of notification make sure that you reschedule the missed exam/assignment with me directly, which must be written/turned in within one week of the missed exam/assignment (due) date.

- (c) If you neglect to do any of the above (MSAF, email me, reschedule), you will receive a grade of zero, and no exceptions will be made so be forewarned.<sup>1</sup>
2. Given the class size **kindly refrain from e-mailing me for class related questions** except as outlined in item 1.

In particular, questions such as “*I missed class – what did we do last week, what chapter are we on, when is the assignment due, I don’t understand X, will topic Y be on the exam, what chapters will be covered on the exam, did you hand out an assignment in the past two weeks, what grade did I get on assignment Z*” and so forth are inappropriate questions for e-mail and you should not expect to receive a reply.

I am, of course, more than happy to answer all such questions face-to-face *in class or during office hours*.

It is the policy of the Faculty of Social Sciences that all e-mail communication sent from students to instructors (including TAs), and from students to staff, must originate from the student’s own McMaster University e-mail account. This policy protects confidentiality and confirms the identity of the student. It is the student’s responsibility to ensure that communication is sent to the university from a McMaster account. If an instructor becomes aware that a communication has come from an alternate address, the instructor may not reply at his or her discretion.

3. **Office hours** are typically underused and there is rarely a queue. Office hours are a perfect opportunity to approach me and discuss course material, perhaps over a coffee.<sup>2</sup> Think of my office hours as an opportunity to receive free tutoring each week.

If you cannot attend office hours due to a course conflict kindly approach me in class and we can schedule a mutually agreeable time to meet.

4. I do not distribute **lecture notes** for a variety of reasons, primarily because doing so discourages active learning while taking your own notes has been demonstrated to significantly improve retention and understanding of the material. If you miss a class or wish to clarify any issues presented during the class, I keep a binder with all lecture notes in my office that you are free to come and take notes from *during my office hours*.
5. The **teaching assistant** (TA) is assigned to conduct all grading according to my instructions. Should you have a problem with your grade kindly contact them first. Should

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<sup>1</sup>If you are in a coma in an Intensive Care Unit (ICU) at a Recognized Medical Facility (RMF) and are unable to communicate with the outside world on the Day of an Exam or when an Assignment is Due (DEAD), a notarized copy of your ICU admission and discharge documents, provided in triplicate, will be the only other acceptable exception. Otherwise, if you are in an ICU at an RMF on a DEAD and able to communicate but Unable to Pick up a Telephone, Send a Text or Compose an Email Message (UPTSTCEM), kindly ask the nurse/orderly/doctor to send an email during their break **prior to the time of the exam/assignment** (my contact information is easy to locate, though you have to provide them with my name so that they can do a search; don’t forget to tell them it is “Jeffrey Racine, Hombre Muy Loco, Economics, McMaster” which will facilitate the search process; if they refuse you will need a notarized copy of their written refusal on the RMT letterhead again provided in triplicate). If you are in the process of being admitted to an RMF on a DEAD, are Conscious and Able to Communicate (CAC), but UPTSTCEM, kindly ask the admitting administrator to do so on your behalf at their earliest convenience. Or if you are in the waiting room of an RMF pending admission on a DEAD and are CAC, but UPTSTCEM, kindly ask someone in the waiting room to do so on your behalf. If you find yourself in the waiting room of an RMF pending admission and are the sole person present, immediately call 911. The astute reader may note that I have not addressed the situation where you are unconscious *and* pending admission at an RMF *conditional* on it being a DEAD, but the joint probability of these two events conditional on the other (i.e.,  $P(A \cap B|C)$ ) is known to be exceedingly small hence I will not waste space discussing options for this case; ditto for being conscious *and* UPTSTCEM in an ICU at an RMF *conditional* on it being a DEAD. For all other random occurrences of unconsciousness that may occur in non-RMFs coinciding with it being a DEAD, kindly refer to item 1.

<sup>2</sup>I take mine black.

you be unable to resolve your problem with the TA then please feel free to see me during my office hours.

The TA for the course is Yihong Bai whose office is located in KTH 118 and whose office hours are Tues 11.30am-12.30pm and Fri 11.30am-12.30pm or by appointment.

Note that the TA's role is restricted to *grading only*. Questions regarding course material are to be discussed with me during class or during my office hours or by appointment.

6. Students who anticipate the necessity of being **absent** from an exam due to the observation of a **major religious observance** must provide notice of the date(s) to the instructor, in writing, by the *second class* meeting.
7. **Assignments are to be handed in during class at the beginning of class on the day they are due. Late assignments will not be accepted (with the exception of item 1.).**

If you are absent from a class when a graded assignment or test is handed back, you can retrieve these from the TA during their office hours. I do not keep assignments or exams in my office so please refrain from showing up at my office to collect old assignments or exams.

8. Any type of **photography/video/audio recording** during class is strictly forbidden. The only exception will be if you have the *express written consent* of the instructor.
9. **Mid-Term exams are held in our regular classroom.** The final exam is scheduled by the Registrar's office in a location set by them (i.e., not in our regular classroom).
10. **Though strongly recommended, attendance is not mandatory** (I respect your right to make choices and assume that you are the best judge of using your time wisely). In this spirit, please do not feel that you have to call me to explain how you have fallen victim to car troubles, traffic jams, encounters with police officers, border patrol agents, or bizarre phenomena including poltergeist experiences with alarm clocks and demonic-possessed pets who eat assignments or who have suddenly developed blood in their stool. Should you decide not to attend class, kindly pay close attention to item 2.

- **Academic Dishonesty**

Academic dishonesty consists of misrepresentation by deception or by other fraudulent means and can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various kinds of academic dishonesty please refer to the McMaster University Academic Integrity Policy.

The following illustrates a few common forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained.
2. Improper collaboration.
3. Copying or using unauthorized aids in tests and examinations.

- **Disclaimer**

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.

### Course Calendar

Below is an outline of the term. Taking note of important events such as mid-term dates, final exam date (set by the Registrar's office - see the dreaded 'exam matrix' when available), and assignment due dates (to be announced in class) may help you to schedule your time efficiently.

Keep up with your reading and assignments - don't let your work 'snowball'. Remember that 'reviewing' for exams should be just that - reviewing material you have already learned, and not learning it for the first time.

#### September 2019

Su	Mo	Tu	We	Th	Fr	Sa	
1	2	3	4	5	6	7	Classes begin Tuesday September 3
8	9	10	11	12	13	14	
15	16	17	18	19	20	21	A1 due Wednesday September 18
22	23	24	25	26	27	28	
29	30						

#### October 2019

Su	Mo	Tu	We	Th	Fr	Sa	
		1	2	3	4	5	A2 due Wednesday October 2
	6	7	8	9	10	11	12 Exam I Wednesday October 9
13	14	15	16	17	18	19	Mid term recess October 14-20
20	21	22	23	24	25	26	
27	28	29	30	31			A3 due Wednesday October 30

#### November 2019

Su	Mo	Tu	We	Th	Fr	Sa	
					1	2	
	3	4	5	6	7	8	9
10	11	12	13	14	15	16	A4 due Wednesday November 13
17	18	19	20	21	22	23	Exam II Wednesday November 20
24	25	26	27	28	29	30	

#### December 2019

Su	Mo	Tu	We	Th	Fr	Sa	
1	2	3	4	5	6	7	Last day of classes Wednesday December 4