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**ECONOMICS 768: Advanced Econometrics: Nonparametric Methods**  
**Department of Economics**  
**McMaster University**  
**Online Class Fall 2020**

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- Contact information

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- Course Overview

This course is designed to introduce you to a set of advanced statistical tools that are routinely used for the analysis of economic data. We shall focus on nonparametric methods of estimation and inference, namely i) nonparametric estimation (i.e., with respect to functional form assumptions) and ii) nonparametric inference (i.e., with respect to distributional assumptions). Material will be taken from a variety of sources, with required readings being announced in class. Applications will be emphasized throughout, and we shall use R for data analysis ([www.r-project.org](http://www.r-project.org)). We will adopt recently developed tools for producing reproducible research (R Markdown and Bookdown).

- Course Format

The “lectures” in this course will be asynchronous in nature (i.e., detailed slides and readings will be posted on Avenue to Learn (A2L)). As well, there will be some pre-recorded material posted on A2L pertaining to software, certain examples, and assignment assistance. Office hours will be held virtually via Zoom.

- Course Materials

- Most course material is accessible via A2L, which serves as the main conduit for course content.

- Course Requirements

- Problem sets.
- Midterm examination.
- Term paper.
- Final examination.
- Participation.

- Missed Work

If you fail to write 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 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: 1) the MSAF, 2) email to me, and 3) rescheduling, as follows:

1. In addition to filling out the MSAF, you must notify me via e-mail prior to the time the missed work is due.
2. You must also ensure at the time of notification that you reschedule the missed work with me directly, which must be written/turned in within one week of the missed exam/assignment (due) date.
3. 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.

- Recommended Resources:

- Racine, J. (2019), *An Introduction to the Advanced Theory and Practice of Nonparametric Econometrics (A Replicable Approach Using R)*, Cambridge University Press, ISBN 9781108483407.
- Li, Q. and J. Racine (2007), *Nonparametric Econometrics: Theory and Methods*, Princeton University Press, ISBN: 9780691121611.
- Silverman, B.W. (1986), *Density Estimation for Statistics and Data Analysis*, Chapman and Hall.
- The statistical software required for completing assignments is non-commercial, open source, and freely downloadable (we will use R, RStudio, TeX, and git).

- Evaluation

You will be evaluated on the basis of your performance on the mid-term examination, assignments, term paper, final examination, and participation. The weights assigned to each are as follows;

|                        |     |
|------------------------|-----|
| Assignments .....      | 20% |
| Mid-Term Examination   | 20% |
| Final Examination .... | 35% |
| Term Paper .....       | 20% |
| Participation .....    | 5%  |

The grades are assigned as follows:

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

- Academic Integrity

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. It is your responsibility to understand what constitutes academic dishonesty.

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour 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. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at <https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/>

The following illustrates only three forms of academic dishonesty:

- plagiarism, e.g. the submission of work that is not one’s own or for which other credit has been obtained.
- improper collaboration in group work.
- copying or using unauthorized aids in tests and examinations.

- Authenticity / Plagiarism Detection

Some courses may use a web-based service (Turnitin.com) to reveal authenticity and ownership of student submitted work. For courses using such software, students will be expected to submit their work electronically either directly to Turnitin.com or via an online learning platform (e.g. A2L, etc.) using plagiarism detection (a service supported by Turnitin.com) so it can be checked for academic dishonesty.

Students who do not wish their work to be submitted through the plagiarism detection software must inform the Instructor before the assignment is due. No penalty will be assigned to a student who does not submit work to the plagiarism detection software. All submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, other software, etc.). For more details about McMaster’s use of Turnitin.com please go to [www.mcmaster.ca/academicintegrity](http://www.mcmaster.ca/academicintegrity).

- Courses With An On-Line Element

Some courses may use on-line elements (e.g. e-mail, A2L, LearnLink, web pages, capa, Moodle, ThinkingCap, etc.). Students should be aware that, when they access the electronic components of a course using these elements, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in a course that uses on-line elements will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

- Online Proctoring

Some courses may use online proctoring software for tests and exams. This software may require students to turn on their video camera, present identification, monitor and record their computer activities, and/or lock/restrict their browser or other applications/software during tests or exams. This software may be required to be installed before the test/exam begins.

- Conduct Expectations

As a McMaster student, you have the right to experience, and the responsibility to demonstrate, respectful and dignified interactions within all of our living, learning and working communities. These expectations are described in the Code of Student Rights & Responsibilities (the “Code”). All students share the responsibility of maintaining a positive environment for

the academic and personal growth of all McMaster community members, whether in person or online.

It is essential that students be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in University activities. Student disruptions or behaviours that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx or Zoom for delivery), will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students' access to these platforms.

- Academic Accommodation Of Students With Disabilities

Students with disabilities who require academic accommodation must contact Student Accessibility Services (SAS) at 905-525-9140 ext. 28652 or sas@mcmaster.ca to make arrangements with a Program Coordinator. For further information, consult McMaster University's Academic Accommodation of Students with Disabilities policy.

- Requests For Relief For Missed Academic Term Work

McMaster Student Absence Form (MSAF): In the event of an absence for medical or other reasons, students should review and follow the Academic Regulation in the Undergraduate Calendar "Requests for Relief for Missed Academic Term Work".

- Academic Accommodation For Religious, Indigenous Or Spiritual Observances (RISO)

Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the RISO policy. Students should submit their request to their Faculty Office normally within 10 working days of the beginning of term in which they anticipate a need for accommodation or to the Registrar's Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

- Copyright And Recording

Students are advised that lectures, demonstrations, performances, and any other course material provided by an instructor include copyright protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical and artistic work, including lectures by University instructors. The recording of lectures, tutorials, or other methods of instruction may occur during a course. Recording may be done by either the instructor for the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

- Extreme Circumstances

The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labour disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, A2L and/or McMaster email.