## POLISCI 3325G - Data Science for Political Science

Spring 2024

Professor: Dr. Evelyne Brie

E-mail: ebrie@uwo.ca	Office Hours:
Course Schedule:	Brie (Prof): Tuesday 10am - 12pm (Zoom via Calendly)
Tuesday 1:30pm - 3:20pm	Eckardt (TA): Friday 1pm - 3pm (SSC 7329)
Zoom (via OWL)	Vanderhoeven (TA): Monday 2:30pm - 3:30pm (SSC 7313)

### **Course Description**

The objective of this course is to provide undergraduate students with the necessary statistical tools to make inferences about politics. The ability to quickly and accurately find, collect, manage, and analyze data is now a fundamental skill for quantitative social science researchers. We will cover fundamentals of data analytics and visualization using the statistical programming language R. These topics will be discussed with an eye on applications to research questions in all subfields of political science. Leaving this course, students will be able to acquire, format, analyze, and visualize various types of data. This is an online course that is synchronous (via Zoom) until Spring break, and asynchronous afterwards (via video recordings). Students are required to attend all classes during the semester.

#### Prerequisites

You must have completed 2325F - *Research Design in Political Science* to enroll in this class. Unless you have either the prerequisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course.

#### **Software Requirements**

This course will be taught using R, a free object-oriented statistical programming language. We will also use RStudio, an interface which makes working with R substantially easier. You should download the latest version of R (http://cran.r-project.org/) as well as the latest version of RStudio (https://www.rstudio.com/) and LaTeX (https://www.latex-project.org/get/) before our first class. A how-to guide on how to download these softwares is available on OWL (Resources  $\rightarrow$  Downloading R and Latex.pdf).

You will receive an invitation to a **Slack workspace** at the beginning of the semester. Feel free to share all your problem set-related, substantive or technical questions in the appropriate Slack channel (i.e. **not via email or via Slack private messages**). Note that questions must be written in such a way as to not give away answers to the problem sets. Students are encouraged to answer each other's questions.

### **Evaluations**

Evaluations will consist of four problems sets, two exams and attendance points. Please note that your final grade in this class might be curved.

Week	Date	Evaluation	Percent
3	23/01/2024	Problem Set 1	12.5%
5	06/02/2024	Problem Set 2	12.5%
6	13/02/2024	Midterm Exam	20%
10	12/03/2024	Problem Set 3	12.5%
12	26/03/2024	Problem Set 4	12.5%
Exam Period	TBD	Final Exam	25%
2-13		Attendance	5%

#### 1. Problem Sets (12.5% each – 50% in total)

You will complete 4 problem sets over the course of this class, each worth 12.5% of your final grade. Some of them will be difficult or ask you to expand on what we discussed in class. Please note that these challenges (and frustrations) are inherent to learning computational social science, and while we will work to minimize them, we cannot eliminate them.

Problem sets should be submitted **by the beginning of class** on their due date. The script used to solve the programming problems must be compiled as a PDF and submitted via OWL. Not submitting your work in the appropriate PDF format will result in a 0.5 points penalty. Your problem sets will be evaluated on: the conciseness of your code, the targetedness of your output, whether you obtain the right answer and whether your code is commented. An how-to guide is available on OWL (Resources  $\rightarrow$  Problem Sets  $\rightarrow$  How-To Guide - Problem Sets.pdf).

You might find it helpful to form study groups to work on the problem sets with your peers. However, **each student must submit their own write-up**, and I strongly recommend that you attempt the problems on your own before getting together with your study group. This is the best way to prepare for the exams. One key point: do not share code in any fashion. You may discuss the problem sets conceptually, but the coding must be 100% your own. It is also not allowed to use artificial intelligence softwares to answer the problem set questions. Please note that you must write on your copy the name of all other students you collaborated with. How to proceed is described in the How-To Guide.

#### 2. Exams (45% in total)

There will be a midterm (20%) and a final exam (25%), which are worth 45% of your grade in total. Both the theoretical content and the practical programming content of the class will be evaluated during these exams. Most of the questions will be variations or expansions of the material covered in the problem sets. TAs will hold an optional review session prior to each of the exams to discuss any questions you may have on the material. Exam answers will be evaluated on: the conciseness of your code, the targetedness of your output, whether you obtain the right answer and whether your code is commented.

**Exams will be held in class (not online).** Your script should be compiled as a PDF and uploaded on OWL by the end of the evaluation. Not submitting your work in the appropriate PDF format will result in a 0.5 points penalty. You will have access to your computer during the exam. Accessing Google, personal notes and class material will be allowed, but any form of real-time communication (Slack, Discord, email, SMS, etc.) or use of artificial intelligence softwares is prohibited and will result in disciplinary action. Please note that exams cannot be written early under any circumstances.

#### 3. Attendance (5% in total)

Class attendance via Zoom is mandatory. We will take attendance in the first few minutes of class. If you arrive late, you will be automatically marked as absent—it is then your responsibility to notify the TAs via the Zoom chat at the end of the lecture. Each student is allowed one unexcused absence, beyond which each additional unexcused absence will be penalized by 1%, up to a total of 5%. Please note that we will hold three optional online tutorials over the course of the semester (on week 2, week 5 and week 13). Attending these tutorials is encouraged, but not mandatory. A Zoom link for the tutorials will be sent via the OWL annoucements.

## **Class Material**

#### 1. Slides, Lab Material, Problem Sets Material

Presentation slides, datasets and material for the problem sets will be made available on OWL. RMarkdown write-ups for our laboratories will be uploaded on the following web page: https://www.evelynebrie.com/intro-to-data-science/.

#### 2. Readings

The mandatory coursebook is the following:

• Llaudet, E., Imai, K. Data analysis for social science: a friendly and practical introduction. 2022. Princeton University Press (available at the Bookstore—please note that the first chapters are made available on OWL).

Please note that a variety of high-quality material relative to programming with R is freely available online, among others here:

• Wickham H. & Grolemund G. *R for Data Science*. 2017. O'Reilly. Available here: https://r4ds.had.co.nz/

I also recommend consulting the following book, which discusses how to conduct empirical research in political science using R:

 Berdahl R. Explorations: Conducting Empirical Research in Canadian Political Science, 4th Edition. 2021. Oxford University Press. Available here: https://learninglink.oup.com/access/berdahl4e-student-resources#tag\_lab-manual

## Late Problem Sets and Grading

All students will be granted one 24-hour automatic problem set extension during the semester, no questions asked. You do not need to inform us in advance when using your extension, as we will be keeping track of submission times. Beyond that, late problem sets will be penalized by 10 percentage points for each 24 hours that they are late, until the answer key is posted on OWL, after which your grade will be 0. The material in this course is cumulative, so lateness on a specific assignment will have negative effects on your ability to learn the material.

## **Office Hours and Tutorials**

I will hold office hours to address any follow-up questions, to suggest further readings, to discuss assignments and to cover any other topics relevant to the class. These office hours are held **via Zoom on Tuesdays from 10:00am to 12:00pm** (you must make an appointment here: https://calendly.com/e\_brie). The teaching assistants will also hold office hours at the times and locations indicated on the first page of this syllabus. You can contact the teaching assistants at the following email addresses: jeckardt@uwo.ca (Jan Eckardt) and nvande43@uwo.ca (Noah Vanderhoeven).

We will hold three optional online tutorials over the course of the semester at the times indicated in the schedule provided in this syllabus (on week 2, week 5 and week 13). Attending these tutorials is encouraged, but not mandatory.

## Medical and Compassionate Extensions

If illness prevents you from coming to class or from turning in assignments on time, the illness must be documented according to Western's Policy on Accommodation for Illness (available **here**). To obtain any accommodation in the context of this class, you must email appropriate documentation to the Academic Counselling office at **arts@uwo.ca**. All requests for medical or compassionate extensions must go through academic counseling only. The Accommodation request is emailed to professors shortly after, and it is the student's responsibility to follow up with professors and make the appropriate arrangements if approved.

For each exam (midterm and final), there will be one make-up exam held only for students who have obtained an accommodation the Academic Counselling office. The format for the make-up exam is exactly the same as for the main exam and it will cover the exact same material as the main exam, but with different questions. Having another class or tutorial scheduled during the make-up exam will not be accepted as a reason to miss it. If you have a test or assignment that makes it impossible for you to miss the conflicting class, you must email me the course name and number, its exact start/finish times on the day, the professor's name and email (not a TA), and the reason you can't miss it. I will contact them to confirm. As I'm sure you understand, we simply cannot schedule countless make-up exams: any request to also miss the make-up exam will therefore be denied without very good and very documented reasons that we will follow up with phone calls to confirm. If you miss the make-up exam with an accommodation, it will be replaced with a significant research assignment based on all the material and readings covered during the semester.

#### **Duration of Extensions**

If it is approved by student counselling, your extension will be for exactly how many days they approve. For example, if the problem set due date was the 22nd, and your accommodation is from the 22nd to 24th, you will get a 3-day extension (22, 23, 24) meaning your problem set is then due by 1:30 pm on the 25th. You must submit your problem set through OWL by 1:30 pm on the new due date. After that it will be counted as late and the late penalty will start to apply.

If the accommodation dates given by counselling start a day or two after the problem set due date, your extension is still only for the number of days between their start and end dates. For example, if the problem set is due on the 22nd, and your accommodation is from the 24th to 25th, you will receive a 2-day extension only (24, 25) from the original due date, making it due on the 24th. Applying for an accommodation on a Friday and not hearing back from counselling until the Monday will not give you extra days.

#### Flexibility with Assignment Deadlines

Students who have the "flexibility with assignment deadlines" accommodation from Accessible Education do NOT need to email me. You must contact academic counselling to have an extension approved and it will be for a maximum of 3 days. Longer extensions will not be granted. Therefore, if the problem set due date was the 22nd, and you receive the 3 day "flexibility with assignment deadlines" accommodation, your problem set is then due by 1:30 pm on the 25th. Having the "flexibility with assignment deadlines" accommodation does not apply to the date you write the exams.

#### **Re-Writing Assignments and Ignoring Unsubmitted Work**

You are not allowed to re-write any exam or problem set once they have been handed in for marking, unless due to exceptional circumstances as assessed by the Dean's office. In the event

that you do not submit some evaluations, you may not have your mark reweighted as to ignore your unsubmitted work unless you have written permission from the Academic Counsellor in your Faculty.

### **Statement on Academic Offences**

Scholastic offences are taken seriously and students are encouraged to read the appropriate policies, specifically, the definition of what constitutes a Scholastic Offence and the associated penalties here.

Computer-marked tests and exams may be subject to submission for similarity review by softwares that will check for unusual coincidences in answer patterns. All assignments may be subject to submission for textual similarity review to the commercial plagiarism-detection software under license to the University for the detection of plagiarism. All assignments submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com.

## **Religious Accommodations and Accessibility**

When a course requirement conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request accommodation for their absence in writing at least two weeks prior to the holiday to the course instructor and/or the Academic Counselling office of their Faculty of Registration. Please consult University's list of recognized religious holidays (updated annually) here.

Students with disabilities are encouraged to contact Accessible Education, which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The policy on Academic Accommodation for Students with Disabilities can be found here.

### Schedule and learning goals

The learning goals below should be viewed as the key concepts you should grasp after each class. Please note that this schedule is tentative and subject to change.

\_\_\_\_\_ Week 1 \_\_\_\_\_

#### Tuesday, January 9th

- Concepts
  - Introduction to Data Science
  - Inputting and Managing Data
- Readings
  - Llaudet & Imai: Chapter 1 (sections 1.1 to 1.7)

\_\_\_\_\_ Week 2 \_\_\_\_\_

#### Tuesday, January 16th

- Concepts
  - Basic Descriptive Statistics
  - Subsetting, Merging and Manipulating Data
- Readings
  - Llaudet & Imai: Chapter 1 (section 1.8) and Chapter 2 (section 2.5)

**Optional tutorial**: setting up R and compiling PDFs

- Monday January 15th, 1:30pm 2:30pm (via Zoom)
- Thursday January 18th, 4:30pm 5:30pm (via Zoom)

\_\_\_\_\_ Week 3 \_\_\_\_\_

Tuesday, January 23rd

Submit Problem Set 1 (12.5%)

- Concept
  - Causal Inference
- Readings
  - Llaudet & Imai: Chapter 3
  - King, Keohane and Verba. Designing Social Inquiry. 1994 (Chapter 3)

\_\_\_\_\_ Week 4 \_\_\_\_\_

#### Tuesday, January 30th

- Concept
  - Univariate and Multivariate Data Visualization
- Readings
  - Wickham. ggplot2: Elegant Graphics for Data Analysis. 2016: Chapter 2

\_\_\_\_\_ Week 5 \_\_\_\_\_

Tuesday, February 6th

Submit Problem Set 2 (12.5%)

- Concept
  - Linear Regression
- Readings
  - Llaudet & Imai: Chapter 4

**Optional tutorial**: midterm review session

- Wednesday February 7th, 3:00pm 4:00pm (via Zoom)
- Thursday February 8th, 4:30pm 5:30pm (via Zoom)

\_\_\_\_\_ Week 6 \_\_\_\_\_

**Tuesday, February 13th** 

Midterm Exam (20%)

Week 7: Spring Break

\_\_\_\_\_ Week 8 \_\_\_\_\_

#### Tuesday, February 27th

• Concept

- Randomized Experiments
- Readings
  - Llaudet & Imai: Chapter 2 (except section 2.5)

\_\_\_\_\_ Week 9 \_\_\_\_\_

#### Tuesday, March 5th

- Concepts
  - Text Manipulation
  - Textual Analysis
- Readings
  - Imai & Webb Williams: Chapter 5 (sections 5.1 and 5.5.1)

\_\_\_\_\_ Week 10 \_\_\_\_\_

#### Tuesday, March 12th

#### Submit Problem Set 3 (12.5%)

- Concepts
  - Sampling from Probability Distributions
  - Law of Large Numbers
  - Central Limit Theorem
- Readings
  - Llaudet & Imai: Chapter 6

\_\_\_\_\_ Week 11 \_\_\_\_\_

#### Tuesday, March 19th

- Concepts
  - Estimation
  - Introduction to p-values
- Readings
  - Imai & Webb Williams: Chapter 7 (sections 7.1 and 7.2)

\_\_\_\_\_ Week 12 \_\_\_\_\_

#### Tuesday, March 26th

Submit Problem Set 4 (12.5%)

- Concepts
  - Visualizing Spatial Data
- Readings
  - Imai & Webb Williams: Chapter 5 (section 5.3)

\_\_\_\_\_ Week 13 \_\_\_\_\_

#### Tuesday, April 2th

- Concepts
  - Scraping Social Media Data
- Readings
  - Munzert et al. 2015. *Automated Data Collection with R: A Practical Guide to Web Scraping and Text Mining*. (Chapter 9)

**Optional tutorial**: final review session

- Wednesday April 3rd, 3:00pm 4:00pm (via Zoom)
- Thursday April 4th, 4:30pm 5:30pm (via Zoom)

\_\_\_\_\_ Exam Period \_\_\_\_\_

#### Date TBD

Final Exam (25%)

- 2.5-hour in-class format with access to your notes and Internet (no communication allowed)
- The exam will be held on a time and date to be determined by the Office of the Registrar during the scheduled exam period
- Please note that the course instructor has no control whatsoever over the time and date of the exam

#### APPENDIX TO UNDERGRADUATE COURSE OUTLINES DEPARTMENT OF POLITICAL SCIENCE

#### Prerequisite checking - the student's responsibility

"Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites."

#### **Essay course requirements**

With the exception of 1000-level courses, most courses in the Department of Political Science are essay courses. Total written assignments (excluding examinations) will be at least 3,000 words in Politics 1020E, at least 5,000 words in a full course numbered 2000 or above, and at least 2,500 words in a half course numbered 2000 or above.

#### Use of Personal Response Systems ("Clickers")

"Personal Response Systems ("clickers") may be used in some classes. If clickers are to be used in a class, it is the responsibility of the student to ensure that the device is activated and functional. Students must see their instructor if they have any concerns about whether the clicker is malfunctioning. Students must use only their own clicker. If clicker records are used to compute a portion of the course grade:

• the use of somebody else's clicker in class constitutes a scholastic offence,

• the possession of a clicker belonging to another student will be interpreted as an attempt to commit a scholastic offence."

**Security and Confidentiality of Student Work** (refer to current *Western Academic Calendar* <u>http://www.westerncalendar.uwo.ca/</u>

"Submitting or Returning Student Assignments, Tests and Exams - All student assignments, tests and exams will be handled in a secure and confidential manner. Particularly in this respect, leaving student work unattended in public areas for pickup is not permitted."

#### **Duplication of work**

Undergraduate students who submit similar assignments on closely related topics in two different courses must obtain the consent of both instructors prior to the submission of the assignment. If prior approval is not obtained, each instructor reserves the right not to accept the assignment.

#### Grade adjustments

In order to ensure that comparable standards are applied in political science courses, the Department may require instructors to adjust final marks to conform to Departmental guidelines.

#### **Academic Offences**

"Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site: http://www.uwo.ca/univsec/pdf/academic\_policies/appeals/scholastic\_discipline\_undergrad.pdf

#### **Submission of Course Requirements**

ESSAYS, ASSIGNMENTS, TAKE-HOME EXAMS MUST BE SUBMITTED ACCORDING TO PROCEDURES SPECIFIED BY YOUR INSTRUCTOR (I.E., IN CLASS, DURING OFFICE HOURS, TA'S OFFICE HOURS) OR UNDER THE INSTRUCTOR'S OFFICE DOOR.

#### THE MAIN OFFICE DOES NOT DATE-STAMP OR ACCEPT ANY OF THE ABOVE.

#### **Attendance Regulations for Examinations**

EXAMINATIONS/ATTENDANCE (Sen. Min. Feb.4/49, May 23/58, S.94, S.3538, S.3632, S.04-097) A student is entitled to be examined in courses in which registration is maintained, subject to the following limitations: 1) A student may be debarred from writing the final examination for failure to maintain satisfactory academic standing throughout the year. 2) Any student who, in the opinion of the instructor, is absent too frequently from class or laboratory periods in any course will be reported to the Dean of the Faculty offering the course (after due warning has been given). On the recommendation of the Department concerned, and with the permission of the Dean of that Faculty, the student will be debarred from taking the regular examination in the course. The Dean of the Faculty offering the course will communicate that decision to the Dean of the Faculty of registration.

## **Absences from Final Examinations**

If you miss the Final Exam, please contact the Academic Counselling office of your Faculty of Registration as soon as you are able to do so. They will assess your eligibility to write the Special Examination (the name given by the University to a makeup Final Exam).

You may also be eligible to write the Special Exam if you are in a "Multiple Exam Situation" (e.g., more than 2 exams in 23-hour period, more than 3 exams in a 47-hour period).

**Note:** Missed work can <u>only</u> be excused through one of the mechanisms above. Being asked not to attend an in-person course requirement due to potential COVID-19 symptoms is **not** sufficient on its own. Students should check the Western website to see what directives for Covid are to be followed. Western has been and will continue to follow directives established by the Middlesex-London Health Unit. That directive will state whether students should or should not come to campus/class and any other requirements (e.g., masks are mandatory). Please check on your own and <u>do not email the instructor, the Department Undergraduate Advisor/Coordinator or the Faculty of Social Science Academic Counselling Office</u>.

## Accommodation and Accessibility

#### **Religious Accommodation**

When a course requirement conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request accommodation for their absence in writing at least two weeks prior to the holiday to the course instructor and/or the

Academic Counselling office of their Faculty of Registration. Please consult University's list of recognized religious holidays (updated annually) at

https://multiculturalcalendar.com/ecal/index.php?s=c-univwo.

#### **AccommodationPolicies**

Students with disabilities are encouraged to contact Accessible Education, which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The policy on Academic Accommodation for Students with Disabilities can be found at:

https://www.uwo.ca/univsec/pdf/academic\_policies/appeals/Academic Accommodation\_disabilities.pdf.

## **Academic Policies**

The website for Registrarial Services is http://www.registrar.uwo.ca.

In accordance with policy,

https://www.uwo.ca/univsec/pdf/policies\_procedures/section1/mapp113.pdf,

the centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at their official university address is attended to in a timely manner.

During exams/tests/quizzes, no electronic devices (e.g. a phone, laptop, iPad) are allowed and must be powered down <u>and stored out of reach</u>.

**Scholastic offences** are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:

http://www.uwo.ca/univsec/pdf/academic\_policies/appeals/scholastic\_discipline\_undergrad.pdf.

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (http://www.turnitin.com).

Computer-marked multiple-choice tests and exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

If a course uses remote proctoring, please be advised that you are consenting to the use of this software and acknowledge that you will be required to provide **personal information** (including

some biometric data) and the session will be **recorded**. Completion of a course with remote proctoring will require you to have a reliable internet connection and a device that meets the technical requirements for this service. More information about this remote proctoring service, including technical requirements, is available on Western's Remote Proctoring website at:

https://remoteproctoring.uwo.ca.

## **Support Services**

Please visit the Social Science Academic Counselling webpage for information on adding/dropping courses, academic considerations for absences, appeals, exam conflicts, and many other academic related matters: <u>Academic Counselling - Western University (uwo.ca)</u>

Students who are in emotional/mental distress should refer to Mental Health@Western (https://uwo.ca/health/) for a complete list of options about how to obtain help.

Western is committed to reducing incidents of gender-based and sexual violence and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced sexual or gender-based violence (either recently or in the past), you will find information about support services for survivors, including emergency contacts at

https://www.uwo.ca/health/student\_support/survivor\_support/get-help.html.

To connect with a case manager or set up an appointment, please contact support@uwo.ca.

Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Accessible Education at

http://academicsupport.uwo.ca/accessible education/index.html

if you have any questions regarding accommodations.

Learning-skills counsellors at the Learning Development and Success Centre (https://learning.uwo.ca) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.

Western University is committed to a thriving campus as we deliver our courses in the mixed model of both virtual and face-to-face formats. We encourage you to check out the Digital Student Experience website to manage your academics and well-being: https://www.uwo.ca/se/digital/.

Additional student-run support services are offered by the USC, https://westernusc.ca/services/.

## **Plagiarism:**

Students must write their essays and assignments in their own words. Whenever students take an idea, or a passage from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. Plagiarism is a major academic offence." (see Scholastic Offence Policy in the Western Academic Calendar).

**Plagiarism Checking:** "All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (http://www.turnitin.com)."

**Multiple-choice tests/exams**: "Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating."

Note: Information excerpted and quoted above are Senate regulations from the Handbook of Scholarship and Academic Policy. <u>https://www.uwo.ca/univsec/academic\_policies/index.html</u>

#### PLAGIARISM\*

In writing scholarly papers, you must keep firmly in mind the need to avoid plagiarism. Plagiarism is the unacknowledged borrowing of another writer's words or ideas. Different forms of writing require different types of acknowledgement. The following rules pertain to the acknowledgements necessary in academic papers.

# A. In using another writer's words, you must both place the words in quotation marks and acknowledge that the words are those of another writer.

You are plagiarizing if you use a sequence of words, a sentence or a paragraph taken from other writers without acknowledging them to be theirs. Acknowledgement is indicated either by (1) mentioning the author and work from which the words are borrowed in the text of your paper; or by (2) placing a footnote number at the end of the quotation in your text, and including a correspondingly numbered footnote at the bottom of the page (or in a separate reference section at the end of your essay). This footnote should indicate author, title of the work, place and date of publication, and page number.

Method (2) given above is usually preferable for academic essays because it provides the reader with more information about your sources and leaves your text uncluttered with parenthetical and tangential references. In either case words taken from another author must be enclosed in quotation marks or set off from your text by single spacing and indentation in such a way that they cannot be mistaken for your own words. Note that you cannot avoid indicating quotation simply by changing a word or phrase in a sentence or paragraph which is not your own.

#### B. In adopting other writers' ideas, you must acknowledge that they are theirs.

You are plagiarizing if you adopt, summarize, or paraphrase other writers' trains of argument, ideas or sequences of ideas without acknowledging their authorship according to the method of acknowledgement given in 'A' above. Since the words are your own, they need not be enclosed in quotation marks. Be certain, however, that the words you use are entirely your own; where you must use words or phrases from your source, these should be enclosed in quotation marks, as in 'A' above.

Clearly, it is possible for you to formulate arguments or ideas independently of another writer who hasexpounded the same ideas, and whom you have not read. Where you got your ideas is the important consideration here. Do not be afraid to present an argument or idea without acknowledgement to another writer, if you have arrived at it entirely independently. Acknowledge it if you have derived it from a source outsideyour own thinking on the subject.

In short, use of acknowledgements and, when necessary, quotation marks is necessary to distinguish clearly between what is yours and what is not. Since the rules have been explained to you, if you fail to make this distinction your instructor very likely will do so for you, and they will be forced to regard your omission as intentional literary theft. Plagiarism is a serious offence which may result in a student's receiving an 'F' in acourse or, in extreme cases in their suspension from the University.

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Adopted by the council of the Faculty of Social Science, October, 1970; approved by the Dept. of History August 13, 1991