

## COURSE OUTLINES (SYLLABI) FOR SS3850G – Data Analysis

### 1. General Course Information

#### Course Information

Course name – Data Analysis

Course Number: SS3850G

Academic Term: Fall 2018

Lecture Hours: Mon, Wed, Friday 10:30 AM-11:30 AM WSC 240;

#### Prerequisite Requirements :

SS2858A/B: A minimum mark of 60% in Statistical Sciences 2858A/B.

Anti-requisites: The former Statistical Sciences 3814A/B.

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.

### 2. Instructor Information

Instructor: Jiandong Ren

Office: WSC 219

Email: jren@stats.uwo.ca

Phone: 519-661-2111, Ext 88209

Office hours: Tue 2-4pm, Thu 1:30-2:30pm.

You are welcome to communicate with your instructor by OWL Messages (use Instructor Role when sending), but communication should only be used to provide them with information or to ask administrative questions that require a brief response. For more lengthy discussions and for discussions on lectures/course material please see your instructor during scheduled office hours or by appointment. Students are also encouraged to use the online forums on OWL to discuss relevant questions.

### 3. Course Description/Syllabus

The goal of this course to expose students to topics related to statistical learning such as, Linear Regression, Logistic Regression, Discriminant Analysis, Model Selection and Regularization, Cross Validation, Tree Based Methods and Clustering.

#### 4. Course Materials

##### Text Book(s)

**An Introduction to Statistical Learning --with applications in R**, by Gareth James, Daniela Witten, Trevor Hastie and Robert Tibshirani, Springer; 1st ed. 2013 edition  
Textbook website: <http://www-bcf.usc.edu/~gareth/ISL/>

Students should check **OWL** (<http://owl.uwo.ca>) on a regular basis for news and updates. This is the primary method by which information will be disseminated to all students in the class. Students are responsible for checking OWL on a regular basis.

#### 5. Methods of Evaluation

**Assignments:** There will be 4 assignments and a data analysis project. Students are required to present their results for the assignments and the project in class.

##### Midterms or Tests

No midterm exam.

##### Final Exam

The date and time for the 3-hour final exam will be announced by the registrar's office, usually near the first part of November. Students are required to wait until the final exam schedule is posted before making arrangements for travel over the Christmas period. Exams will NOT be moved to accommodate students who ignore this requirement.

##### The Course Grade

The overall course grade will be calculated as listed below:

Assignments	20%
Project	20%
Final Exam	40%
Presentations	20%

#### 6. Course Website Information

Western's learning management system OWL will be used. Please check this webpage regularly for lecture notes, exam materials and announcements. A copy of this course outline is also posted.

## **7. Accommodation and Accessibility**

If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or supporting documentation to the Academic Counselling Office of your home faculty as soon as possible. If you are a Science student, the Academic Counselling Office of the Faculty of Science is located in WSC 140, and can be contacted at [scibmsac@uwo.ca](mailto:scibmsac@uwo.ca).

For further information, please consult the university's medical illness policy at [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/accommodation\\_medical.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf).

### **Missed Midterm or Test:**

If you miss the Final Exam, please contact your faculty's Academic Counselling Office as soon as you are able to do so. They will assess your eligibility to write the Special Exam (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" (see [http://www.registrar.uwo.ca/examinations/exam\\_schedule.html](http://www.registrar.uwo.ca/examinations/exam_schedule.html)).

## **8. Academic Policies**

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

### **7.1 UWO email account**

In accordance with policy, <http://www.uwo.ca/its/identity/activatenonstudent.html>, 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 his/her official university address is attended to in a timely manner.

### **7.2 Scholastic 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 this website: [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/scholastic\\_discipline\\_undergrad.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf).

### **7.3 Attendance**

Classroom attendance is viewed as an 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).

Attending other students' presentations are mandatory.

#### 7.4 Classroom Environment

The Department 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 at: [http://www.stats.uwo.ca/mutual\\_expectations.pdf](http://www.stats.uwo.ca/mutual_expectations.pdf).

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.

### 9. Support Services

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 Services for Students with Disabilities (SSD) at 661-2111 ext. 82147 if you have questions regarding accommodation.

The policy on Accommodation for Students with Disabilities can be found here: [www.uwo.ca/univsec/pdf/academic\\_policies/appeals/accommodation\\_disabilities.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_disabilities.pdf)

The policy on Accommodation for Religious Holidays can be found here: [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/accommodation\\_religious.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_religious.pdf)

Learning-skills counsellors at the Student Development Centre (<http://www.sdc.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.

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

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