## COURSE DETAILS

<table>
<thead>
<tr>
<th>Course Title &amp; Number:</th>
<th>ABIZ 3080 Introduction to Econometrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Credit Hours:</td>
<td>3</td>
</tr>
<tr>
<td>Class Times &amp; Days of Week:</td>
<td>A01 Tuesday/Thursday 10:00</td>
</tr>
</tbody>
</table>
| Location for classes/labs/tutorials: | B01 Monday 9:30  
B02 Wednesday 9:30 |
| Pre-Requisites: | STAT 2000; ECON 1010; ECON 1020 |

## Instructor Contact Information

<table>
<thead>
<tr>
<th>Instructor(s) Name &amp; Preferred Form of Address:</th>
<th>Dr. Jared Carlberg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Location:</td>
<td>372 Agriculture Building</td>
</tr>
<tr>
<td>Office Hours or Availability:</td>
<td>Please email any questions you have</td>
</tr>
<tr>
<td>Office Phone No.</td>
<td>474-9827</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:jared.carlberg@umanitoba.ca">jared.carlberg@umanitoba.ca</a></td>
</tr>
</tbody>
</table>

**Contact:** Contact by email is the surest way to get in touch with me, and I normally see my emails from fairly early in the morning until fairly late at night.

<table>
<thead>
<tr>
<th>Teaching Assistant</th>
<th>Damla Oz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Location:</td>
<td>TBA</td>
</tr>
<tr>
<td>Office Hours or Availability:</td>
<td>By appointment</td>
</tr>
<tr>
<td>Office Phone No.</td>
<td>N/A</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:ozd@myumanitoba.ca">ozd@myumanitoba.ca</a></td>
</tr>
</tbody>
</table>
Course Description

U of M Course Calendar Description
The application of statistical tools, especially regression analysis for estimating economic relationships and testing economic hypotheses through the use of spreadsheets and data sets.

Course Goals
In this course students will learn how to estimate econometric models and interpret the results in order to answer the “how much” questions. The overarching goal is to teach you how to think like an economist, partly by understanding the nature of the relationships between/among variables.

Optional Textbooks

Course Technology
The labs and assignments for our course will require the use of Microsoft Excel.

Expectations: I Expect You To
I expect you to attend and actively participate in every lecture, to put in the requisite amount of time to be prepared for class, to submit all of your assignments on time, and to work hard on your assignments and in preparing for online quizzes and in-class exams.

Class Communication:
You are required to obtain and use your University of Manitoba email account for all communication between yourself and the university. All communication must comply with the Electronic Communication with Student Policy: http://umanitoba.ca/admin/governance/governing_documents/community/electronic_communication_with_students_policy.html.

Academic Integrity:
Each student in this course is expected to abide by the University of Manitoba Academic Integrity principles. Always remember to reference the work of others that you have used. Also be advised that you are required to complete your assignments independently unless otherwise specified. If you are encouraged to work in a team, ensure that your project complies with the academic integrity regulations. You must do your own work during exams. Inappropriate collaborative behavior and violation of other Academic Integrity principles, will lead to the serious disciplinary action. Visit the Academic Calendar, Student Advocacy, and Academic Integrity web pages for more information and support.

Note the following:
I. Group projects are subject to the rules of academic dishonesty;
II. Group members must ensure that a group project adheres to the principles of academic integrity;
III. Students should also be made aware of any specific instructions concerning study groups and individual assignments;
IV. The limits of collaboration on assignments should be defined as explicitly as possible; and
V. All work should be completed independently unless otherwise specified.

Recording Class Lectures:
No audio or video recording of lectures or presentations is allowed in any format, openly or surreptitiously, in whole or in part without my permission. Course materials (both paper and digital) are for students’ private study and research.

Student Accessibility Services:
The University of Manitoba is committed to providing an accessible academic community. Students Accessibility Services (SAS) offers academic accommodation supports and services such as note-taking, interpreting, assistive technology and exam accommodations. Students who have, or think they may have, a disability (e.g. mental illness, learning, medical, hearing, injury-related, visual) are invited to contact SAS to arrange a confidential consultation.

Student Accessibility Services
520 University Centre
Phone: (204) 474-7423
Email: Student_accessibility@umanitoba.ca

CLASS SCHEDULE AND COURSE EVALUATION
Grades in the course will be assigned in accordance with the following evaluation schedule:

<table>
<thead>
<tr>
<th>Written assignments</th>
<th>30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab assignments (attendance required)</td>
<td>10%</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>30%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>30%</td>
</tr>
</tbody>
</table>

LIST OF TOPICS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction to Econometrics</td>
</tr>
<tr>
<td>2</td>
<td>Review of Probability</td>
</tr>
<tr>
<td>3</td>
<td>Simple Linear Regression</td>
</tr>
<tr>
<td>4</td>
<td>Properties of the Least Squares Estimators</td>
</tr>
<tr>
<td>5</td>
<td>Inference in the Simple Regression Model</td>
</tr>
<tr>
<td>6</td>
<td>Coefficient of Determination; Functional Form</td>
</tr>
<tr>
<td>7</td>
<td>Multiple Regression</td>
</tr>
<tr>
<td>8</td>
<td>Inference in the Multiple Regression Model</td>
</tr>
</tbody>
</table>
9 Binary (Dummy) Variables
11 Heteroskedasticity
12 Autocorrelation
16 Time Series Data & Stationarity

If time remains at the end of the course, advanced special topics may be introduced.

Grading

The following grading scale will be used. At my discretion a higher grade may be assigned than what is earned using the following scale.

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Percentage out of 100</th>
<th>Grade Point Range</th>
<th>Final Grade Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>90-100</td>
<td>4.25-4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>A</td>
<td>80-89.99</td>
<td>3.75-4.24</td>
<td>4.0</td>
</tr>
<tr>
<td>B+</td>
<td>75-79.99</td>
<td>3.25-3.74</td>
<td>3.5</td>
</tr>
<tr>
<td>B</td>
<td>70-74.99</td>
<td>2.75-3.24</td>
<td>3.0</td>
</tr>
<tr>
<td>C+</td>
<td>65-69.99</td>
<td>2.25-2.74</td>
<td>2.5</td>
</tr>
<tr>
<td>C</td>
<td>60-64</td>
<td>2.0-2.24</td>
<td>2.0</td>
</tr>
<tr>
<td>D</td>
<td>55-59.55</td>
<td>Less than 2.0</td>
<td>1.0</td>
</tr>
<tr>
<td>F</td>
<td>Less than 55</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Voluntary Withdrawal

Refer to the Registrar’s Office web page for more information on voluntary withdrawal.

Assignment Submission Policy

Written assignments are due at the start of class on the due date. Late assignments will be penalized at a rate of 25% per day late or portion thereof. All assignments are required; any student not completing all assignments will receive a grade of “incomplete” in the course. Lab assignments must be submitted at the end of the lab session. Attendance at laboratory sessions is mandatory.

UNIVERSITY SUPPORT OFFICES & POLICIES

Writing and Learning Support

The Academic Learning Centre (ALC) offers services that may be helpful to you throughout your academic program. Through the ALC, you can meet with a learning specialist to discuss concerns such as time management, learning strategies, and test-taking strategies. The ALC also offers peer supported study groups called Supplemental Instruction (SI) for certain courses that students have typically found difficult. In these study groups, students have opportunities to ask questions, compare notes, discuss content, solve practice problems, and develop new study strategies in a group-learning format.

You can also meet one-to-one with a writing tutor who can give you feedback at any stage of the
writing process, whether you are just beginning to work on a written assignment or already have a
draft. If you are interested in meeting with a writing tutor, reserve your appointment two to three
days in advance of the time you would like to meet. Also, plan to meet with a writing tutor a few
days before your paper is due so that you have time to work with the tutor’s feedback.

These Academic Learning Centre services are free for U of M students. For more information, please
visit the Academic Learning Centre website at: http://umanitoba.ca/student/academiclearning/

You can also contact the Academic Learning Centre by calling 204-480-1481 or by visiting 205 Tier
Building.

University of Manitoba Libraries (UML)

As the primary contact for all research needs, your liaison librarian can play a vital role when
completing academic papers and assignments. Liaisons can answer questions about managing
citations, or locating appropriate resources, and will address any other concerns you may have,
regarding the research process. Liaisons can be contacted by email or phone, and are also available
to meet with you in-person. A complete list of liaison librarians can be found by
is provided in person at 19 University Libraries, located on both the Fort Garry and Bannatyne
campuses, as well as in many Winnipeg hospitals. For a listing of all libraries, please consult the
following: http://bit.ly/1sXe6RA. When working remotely, students can also receive help online, via
the Ask-a-Librarian chat found on the Libraries’ homepage: www.umanitoba.ca/libraries.

For 24/7 mental health support, contact the Mobile Crisis Service at 204-940-1781.

Student Counselling Centre
Contact SCC if you are concerned about any aspect of your mental health, including anxiety,
stress, or depression, or for help with relationships or other life concerns. SCC offers crisis
services as well as individual, couple, and group counselling. Student Counselling Centre:
http://umanitoba.ca/student/counselling/index.html
474 University Centre or S207 Medical Services
(204) 474-8592

Student Support Case Management
Contact the Student Support Case Management team if you are concerned about yourself or
another student and don’t know where to turn. SSCM helps connect students with on and off
campus resources, provides safety planning, and offers other supports, including consultation,
educational workshops, and referral to the STATIS threat assessment team.
Student Support Intake Assistant http://umanitoba.ca/student/case-manager/index.html
520 University Centre
(204) 474-7423

University Health Service
Contact UHS for any medical concerns, including mental health problems. UHS offers a full range
of medical services to students, including psychiatric consultation.
University Health Service http://umanitoba.ca/student/health/
Health and Wellness
Contact our Health and Wellness Educator if you are interested in information on a broad range of health topics, including physical and mental health concerns, alcohol and substance use harms, and sexual assault.

Health and Wellness Educator http://umanitoba.ca/student/health-wellness/welcome.html
Katie.Kutryk@umanitoba.ca
469 University Centre
(204) 295-9032

Live Well @ UofM
For comprehensive information about the full range of health and wellness resources available on campus, visit the Live Well @ UofM site:
http://umanitoba.ca/student/livewell/index.html

All students are required to respect copyright as per Canada’s Copyright Act. Staff and students play a key role in the University’s copyright compliance as we balance user rights for educational purposes with the rights of content creators from around the world. The Copyright Office provides copyright resources and support for all members of the University of Manitoba community. Visit http://umanitoba.ca/copyright for more information.

Your rights and responsibilities
As a student of the University of Manitoba you have rights and responsibilities. It is important for you to know what you can expect from the University as a student and to understand what the University expects from you. Become familiar with the policies and procedures of the University and the regulations that are specific to your faculty, college or school.

The Academic Calendar http://umanitoba.ca/student/records/academiccalendar.html is one important source of information. View the sections University Policies and Procedures and General Academic Regulations.

While all of the information contained in these two sections is important, the following information is highlighted.

- If you have questions about your grades, talk to your instructor. There is a process for term work and final grade appeals. Note that you have the right to access your final examination scripts. See the Registrar’s Office website for more information including appeal deadline dates and the appeal form http://umanitoba.ca/registrar/

- You are expected to view the General Academic Regulation section within the Academic Calendar and specifically read the Academic Integrity regulation. Consult the course syllabus or ask your instructor for additional information about demonstrating academic integrity in your academic work. Visit the Academic Integrity Site for tools and support http://umanitoba.ca/academicintegrity/ View the Student Academic Misconduct
procedure for more information.

- The University is committed to a respectful work and learning environment. You have the right to be treated with respect and you are expected conduct yourself in an appropriate respectful manner. Policies governing behavior include the:

  **Respectful Work and Learning Environment**
  

  **Student Discipline**
  
  [http://umanitoba.ca/admin/governance/governing_documents/students/student_discipline.html](http://umanitoba.ca/admin/governance/governing_documents/students/student_discipline.html)

  and,

  **Violent or Threatening Behaviour**
  

- If you experience **Sexual Assault** or know a member of the University community who has, it is important to know there is a policy that provides information about the supports available to those who disclose and outlines a process for reporting. The **Sexual Assault** policy may be found at:
  

  More information and resources can be found by reviewing the Sexual Assault site [http://umanitoba.ca/student/sexual-assault/](http://umanitoba.ca/student/sexual-assault/)

- For information about rights and responsibilities regarding **Intellectual Property** view the policy [http://umanitoba.ca/admin/governance/media/Intellectual_Property_Policy_-_2013_10_01.pdf](http://umanitoba.ca/admin/governance/media/Intellectual_Property_Policy_-_2013_10_01.pdf)

For information on regulations that are specific to your academic program, read the section in the Academic Calendar and on the respective faculty/college/school web site [http://umanitoba.ca/faculties/](http://umanitoba.ca/faculties/)

Contact an Academic Advisor within our faculty/college or school for questions about your academic program and regulations [http://umanitoba.ca/academic-advisors/](http://umanitoba.ca/academic-advisors/)

**Student Advocacy**

Contact Student Advocacy if you want to know more about your rights and responsibilities as a student, have questions about policies and procedures, and/or want support in dealing with academic or discipline concerns.


520 University Centre
204 474 7423
student_advocacy@umanitoba.ca