

ABIZ 3530: Farm Management

Syllabus

Instructor

Charles Grant, PhD, PAg
Chair of the Agribusiness Program
Senior Instructor
374 Agriculture Building
Department of Agribusiness and Agricultural Economics
Faculty of Agricultural and Food Sciences
University of Manitoba
charles.grant@umanitoba.ca

Office Hours

By appointment

Course Description

A general description of the course is as follows:

- A series of ten learning units explore farm management concepts and applications. Each unit provides exercises for student applications of the concepts. Microsoft Excel is used throughout as well as Python coding. Each student will complete fully-working Python code to solve a farm management problem of the student's choosing.

Learning Outcomes

Upon completion of this course students who apply themselves to learning will be able to:

- Understand and explain fundamental farm management concepts (e.g. efficiency in logistics, efficiency in feed rations, automation with streaming temperature and humidity data, optimization with irrigation, analysis of marketing data using pivot tables in Excel and Python, analyzing risk and return and rebalancing an investment portfolio);
- Apply agribusiness management concepts to solve farm management problems using Microsoft Excel and Python coding (e.g. efficiency in logistics, efficiency in feed rations, automation with streaming temperature and humidity data, optimization with irrigation, analysis of marketing data using pivot tables in Excel and Python);

- Apply the above to complete fully-working Python code to solve a farm management problem of the student's choosing.

Course Materials

Required Textbook

Grant, Charles W. (*Amped Up*) *Farm Management*, ISBN 9780100021860, © 2020 CW Grant and Company Limited

The textbook for this course is an e-textbook and is available for purchase from the University of Manitoba Bookstore. You will need to purchase a code to get admittance to the book. To get your code you can go the University of Manitoba Bookstore and purchase a code at the service desk or you can phone the University of Manitoba Bookstore at (204) 474-8321 or toll free at 1-800-310-3331 and a customer service person will talk you through the order. Or you can do the online order yourself by starting at the link

<https://umanitoba.ca/campus/bookstore/shoponline.html> It you do it online yourself opt for the "pick up in store" option rather than "delivery". Your code will be emailed to you.

Your code for the e-textbook will be emailed to you. You then go to <https://ampedupagribusiness.ca> and sign up for the e-textbook. An email will come to you inviting you to submit your purchased code. Allow 24 hours for receipt of the returned email. Upon receipt of your returned email with your code you will be admitted to the e-textbook.

Required Technology

The technology required for the course is a computer, Microsoft Office software, Python software (open source), PyCharm IDE (free for students) and an Internet connection. Microsoft Office 365 is available to you as part of your registration as a student at the University of Manitoba.

Course Overview

ABIZ 3530 is a series of ten learning units explore farm management concepts and applications. Each unit provides exercises for student applications of the concepts. Microsoft Excel is used throughout as well as Python coding. Each student will complete fully-working Python code to solve a farm management problem of the student's choosing. Four

assignments are to be completed as well as the final exam.

Topics

- Ch.1 Getting Started – Python installation and an automation application
- Ch2. Logistics – Microsoft Excel and Python coding applied to a farm logistics problem
- Ch3. Python Coding 1 – Integer, Variable, String, Dictionary
- Ch.4 Feed Efficiency – Microsoft Excel and Python coding applied to a feed efficiency problem
- Ch5. Big Data – Python coding (Pandas library) applied to streaming greenhouse temperature and humidity data
- Ch6. Python Coding 2 – Boolean, Tuple, Set, Comparison Operators, For Loops
- Ch7. Pivot Table – Microsoft Excel function applied to analysis of market timing
- Ch8. Irrigation – Microsoft Excel and Python coding applied to irrigation timing decisions
- Ch9. Portfolio – Python coding applied to analyzing a portfolio of investments
- Ch10. Python Coding 3 – For Loop, While Loop, Break Loop, Matplotlib

Learning activities

To learn the materials presented in this course students should read the e-textbook chapters that correspond with the learning units and complete the exercises as assigned. They should practice the Microsoft Excel and Python coding application. Students should then review in detail all of the material from the ten units to prepare for the final examination. Material from all chapters will be tested on the final examination. The material will also provide the foundation for the fully-working Python code that they will complete to solve a farm management problem of the student's choosing.

Evaluation and Grading

Grading for ABIZ 3530 includes evaluation of four submitted assignments and a final examination. Late assignments are docked 10% per day with a two-hour grace period on the first day.

Distribution of Marks

Assignment 1–Chapters 1-3	10%	(In-chapter questions and solutions)
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Assignment 2–Chapters 4-6	10%	submitted to UM Learn) (In-chapter questions and solutions submitted to UM Learn)
Assignment 3–Chapters 7-10	10%	(In-chapter questions and solutions submitted to UM Learn)
Assignment 4–Python code	20%	(working Python code submitted to UM Learn)
Final Examination	50%	
Total	100%	

Grade Assignment

Percentage out of 100	Letter Grade
95-100	A+
86-94	A
80-85	B+
72-79	B
65-71	C+
60-64	C
50-59	D
Below 50	F

Assignment Submission

Assignments are to be submitted to UM Learn. The various parts of the assignments are to be bound up in a single PDF file for each assignment for submission. Multiple files will not be graded so be sure to bind up all of the relevant files for each assignment into a single PDF file.

Assignments are to show a screen shot of answers to the in-chapter questions for each chapter followed by screen shots of the answers to the questions for each unit listed at the end of each chapter.

Assignment Due Dates

Assignment 1–Chapters 1 -3	Due Fri Feb 18 2022 at 11:59 PM
Assignment 2–Chapters 4-6	Due Fri Mar 18 2022 at 11:59 PM
Assignment 3–Chapters 7-10	Due Fri Apr 8 2022 at 11:59 PM
Assignment 4–Python Code	Due Fri Apr 22 2022 at 11:59 PM
Final Examination	To be scheduled by Registrar’s Office

Penalty of late submission of assignments is 10% per day late with a two-hour grace period on the first day.

Examination

The Registrar's Office is responsible for the [final exam schedule](#) which is available approximately one month after the start of the course. The final exam will test your knowledge on all twelve topics covered in the course.

Plagiarism, cheating, and examination impersonation

You should acquaint yourself with the University’s policy on plagiarism, cheating, and examination impersonation as detailed in the General Academic Regulations and Policy section of the University of Manitoba *Undergraduate Calendar*. Note: These policies are also located in your *Distance and Online Education Student Handbook* or you may refer to Student Affairs at <http://www.umanitoba.ca/student>.

Academic Supports Available to Students

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 subject: <http://bit.ly/WcEbA1> or name: <http://bit.ly/1tJ0bB4>. In addition, general library assistance 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/>

104 University Centre, Fort Garry Campus

(204) 474-8411 (Business hours or after hours/urgent calls)

Medical Circumstances

Students who are unable to meet a course requirement due to medical circumstances are currently not required to submit medical notes. However, students are required to contact their instructor or academic advisor by email to inform of the missed work and to make arrangements for extensions, deferrals, or make-up assignments. Please follow these guidelines if you are unable to meet an academic requirement for your courses.

- Contact your instructor for term work such as a class, quiz, midterm/test, assignment, lab;
- Contact an advisor in your faculty/college/school of registration for a missed final exam (scheduled in the final examination period);
- Inform your instructor/advisor as soon as possible do not delay. Note for final exams, students must contact within 48 hours of the date of the final exam; and
- Email your instructor/advisor from a U of M email address, and include your full name, student number, course number, and academic work that was missed.

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>

A notice with respect to copyright

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

- 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 to conduct yourself in an appropriate respectful manner. Policies governing behavior include the:

Respectful Work and Learning Environment

http://umanitoba.ca/admin/governance/governing_documents/community/230.html

Student Discipline

http://umanitoba.ca/admin/governance/governing_documents/students/student_discipline.html and,

Violent or Threatening Behaviour

http://umanitoba.ca/admin/governance/governing_documents/community/669.html

- 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:

http://umanitoba.ca/admin/governance/governing_documents/community/230.html

More information and resources can be found by reviewing the Sexual Assault site

<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

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/>

Contact an Academic Advisor within our faculty/college or school for questions about your academic program and regulations <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.

<http://umanitoba.ca/student/advocacy/>

520 University Centre

204 474 7423

student_advocacy@umanitoba.ca

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