The University of Manitoba  
Faculty of Agricultural and Food Sciences

**COURSE TITLE:** Advanced Crop Production  
**Department:** Plant Science  
**Course Number:** PLNT 7660  
**Academic Session:** Winter 2021  
**Credit Hours:** 3

**Classroom Location:** Virtual meetings on WebEx (access using UMLearn)  
**Meeting Days and Class Hours:**  
- Wednesday 10:00-11:30 (Lecture and Discussion)  
- Friday 1:00-2:30 (Agronomy Club and Group Work)

**Course Web Page:** UMLearn course website at https://universityofmanitoba.desire2learn.com

**Graduate Calendar Description**  
A lecture-seminar course to investigate environmental, crop management and genetic limitations to growth, yield formation, yield, water use efficiency and quality of field, forage and horticultural crops. Interactions will be stressed and emphasis will be placed on sustainable crop production systems. Simple and complex relationships will be demonstrated using models. Prerequisite: consent of instructor.

**Instructor Information**  
**Name & Title:** Dr. Yvonne Lawley, Assistant Professor, Department of Plant Science  
(Students are welcome to address me by name as either Yvonne or Dr. Lawley)

**Office Location:** 109 Plant Science  
**Office Phone Number:** 474-6504  
**Email Address:** Yvonne.lawley@umanitoba.ca (preferred form of communication outside of class)

I will return email within 24-48 hours Monday to Friday. Note: All email communication must conform to the Communicating with Students university policy. You must use your University of Manitoba email for all correspondence in this course.

**Office Hours:** By appointment  
During the pandemic with remote learning at the University of Manitoba, email is the most reliable way to contact Dr. Lawley. If you have several questions or questions that require more explanation to answer, I encourage you to contact me by email to set up an appointment at a mutually agreeable time.

**Course Objectives**

1. Detailed knowledge of the crop production practices for selected crops grown on the Canadian Prairies.
2. Knowledge of current cropping systems of the Canadian Prairies.
3. Exposure to experimental design and statistical methods used in agronomy research.
4. Ability to search, summarize, and critically evaluate journal articles in the field of agronomy.
5. Improved presentation skills
6. Practice reviewing the scientific literature

**Description of Assignments**

There will be five types of assignments for the course. A detailed written description of all assignment will be provided to students in class. Grading Rubrics for assignments will be available in UMLearn.

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Grades</th>
<th>Due Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production Guide Comparison</td>
<td>2 presentations x 5 marks = 10</td>
<td>Jan 27, Feb 3</td>
</tr>
<tr>
<td>Presentation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading Summary Assignments</td>
<td>2 assignments x 10 marks = 20</td>
<td>As assigned</td>
</tr>
</tbody>
</table>
Agronomy Club Presentation 1 presentation x 20 marks = 20 As assigned
Peer Reviews 2 assignments x 10 marks = 20 March 17, 31
Term Paper literature review 30 April 14

Important Dates
March 31, 2021 – Last day for voluntary withdrawal from the course without academic penalty. Students will receive grades from Production Guide presentation and Reading Summary Presentation 1 prior to this date. Students concerned about their progress in the class should talk with Dr. Lawley in early March.

Final numerical grades will be converted to a final letter grade using the following guidelines

<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>95-100</td>
<td>4.25-4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>A</td>
<td>86-94</td>
<td>3.75-4.24</td>
<td>4.0</td>
</tr>
<tr>
<td>B+</td>
<td>80-85</td>
<td>3.25-3.74</td>
<td>3.5</td>
</tr>
<tr>
<td>B</td>
<td>72-99</td>
<td>2.75-3.24</td>
<td>3.0</td>
</tr>
<tr>
<td>C+</td>
<td>65-71</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>50-59</td>
<td>Less than 2.0</td>
<td>1.0</td>
</tr>
<tr>
<td>F</td>
<td>Less than 50</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>
Texts, Readings, Materials

Textbook(s)
There is no textbook for this course. Required readings for this course will be posted on UMLearn.

Supplementary Reading and Additional Materials
If you are struggling with a particular course subject, contact the professor for specific suggestions of supplemental materials.

Course Policies

Late Assignments
Assignments are due at the start of each class period. Late assignments will lose 20% per day (including weekends) and will not be graded if they are more than one week late. Assignments will be typically be submitted electronically in the UMLearn unless a hard copy of the assignment is specifically requested. If a student is unable to complete an assignment due to a medical or other emergency, contact the professor as soon as possible by email.

Missed Assignments
Students will receive a grade of incomplete until all course assignments are submitted.

Academic Integrity
Plagiarism or any other form of cheating in examinations, term tests or academic work is subject to serious academic penalty. Cheating in examinations or tests may take the form of copying from another student or bringing unauthorized materials into the exam room. Cheating can also include exam or assignment impersonation. A student found guilty of contributing to cheating in examinations or term assignments is also subject to serious academic penalty. Students should familiarize themselves with the University’s policy on plagiarism, cheating, exam impersonation and duplicate submission. See the section on Academic Integrity in the University of Manitoba Undergraduate Calendar.

Working with other students on assignments, take-home tests, or on-line tests, when this is not permitted by the instructor, can constitute Inappropriate Collaboration and may be subject to penalty under the University of Manitoba Student Discipline By-Law. Ask the instructor if you are unsure if it collaboration is permitted for an assignment in the course. More information about the definition of inappropriate collaboration is available from Student Advocacy at: http://umanitoba.ca/student/resource/student_advocacy/inappropriate_collaboration.html

Attribution of ideas to their source is expected in this course. This attribution includes using referencing and in-text citation as well ask acknowledging the source of ideas through personal communication in or outside of class from other students, professors, or experts.

Student Accessibility:
The University of Manitoba is committed to providing all students equal access to learning opportunities. Student Accessibility Services (SAS) is the office that works with students who have permanent, chronic, or temporary disabilities to provide and/or arrange reasonable accommodations. Students who have, or think they may have, a disability (e.g. mental health, attentional, learning, vision, hearing, physical, medical or temporary), are invited to contact Student Accessibility Services to arrange a confidential discussion at (204) 474-7423 (V), (204) 474-9790 (TTY) or student_accessibility@umanitoba.ca. Academic accommodation supports and services such as note-taking, interpreting, assistive technology and exam accommodations are available.

Additional information is available from:

   Student Accessibility Services
   520 University Centre
   204 474 7423
   Student_accessibility@umanitoba.ca
**Lecture and Discussion Schedule**

This schedule is subject to change at the discretion of the instructor but such changes are subject to Section 2.8 of ROASS. During the pandemic, this course schedule may change if unforeseen circumstances arise and if access to public schools and child care is impacted.

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Student Presentations</th>
<th>Term Paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jan 20</td>
<td>Course Overview,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Jan 27</td>
<td>Production Guide Presentations – Crop 1</td>
<td>All</td>
<td>Topic Due</td>
</tr>
<tr>
<td>3</td>
<td>Feb 3</td>
<td>Production Guide Presentations – Crop 2</td>
<td>All</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Feb 10</td>
<td>Yield Components</td>
<td>Student 1</td>
<td>Outline Due</td>
</tr>
<tr>
<td>5</td>
<td>Feb 17</td>
<td>Winter Term Break</td>
<td>Student 2</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Feb 24</td>
<td>Grain Quality</td>
<td>Student 3</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>March 3</td>
<td>Mid Term Break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>March 10</td>
<td>Crop Rotation</td>
<td>Student 4</td>
<td>Draft 1</td>
</tr>
<tr>
<td>9</td>
<td>March 17</td>
<td>Tillage Systems</td>
<td>Student 1</td>
<td>Peer Review 1</td>
</tr>
<tr>
<td>10</td>
<td>March 24</td>
<td>Soil Health</td>
<td>Student 2</td>
<td>Draft 2</td>
</tr>
<tr>
<td>11</td>
<td>March 31</td>
<td>Cover Crops</td>
<td>Student 3</td>
<td>Peer Review 2</td>
</tr>
<tr>
<td>12</td>
<td>April 7</td>
<td>Intercropping</td>
<td>Student 4</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>April 14</td>
<td>Course Wrap Up and Course Evaluation</td>
<td></td>
<td>Final Paper</td>
</tr>
</tbody>
</table>
LEARNER SUPPORT

Writing and Learning Support

The Academic Learning Centre (ALC) offers writing and learning supports to help you throughout your academic program. These supports are offered online during the Covid-19 pandemic.

Make an appointment with an ALC 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. The ALC also has an English as an Additional Language (EAL) specialist available to work with students on improving their English-language academic writing skills.

Consult an ALC learning specialist or attend an academic skills workshop to improve your time management, learning strategies and test-taking strategies. Get support in select courses by making an appointment with an ALC content tutor. The ALC also offers peer-facilitated study groups called Supplemental Instruction (SI) for certain courses that students have typically found difficult. In SI study groups, students ask questions, compare notes, discuss content, solve practice problems, and develop new study strategies in a group-learning format.

In addition to one-to-one and group sessions, you can also find writing and study tip sheets and videos on the ALC website.

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/

Contact the Academic Learning Centre by calling 204-480-1481 or emailing academic_learning@umanitoba.ca. Bannatyne students can contact the Bannatyne Student Services office at 204-272-3190.

University of Manitoba Libraries (UML)

Research begins at UM Libraries. Learn at the Libraries is a great place to start, with information for students on academic writing, how to search the library, evaluating resources, and writing citations. 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 locating appropriate resources or managing citations, 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 online. When working remotely, students can also receive help online through Ask Us! chat. For further detail about the libraries’ services and collections, visit the Libraries’ web site. Regularly check our COVID-19 Update page for available library services and access to resources for Fall 2020

Section (b)

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 UMSU University Centre or S211 Medical Services Building
(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.
520 UMSU University Centre
(204) 474-7423 (Student Support Intake Assistant)

**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. Note that due to fire displacement, UHS is unable to provide in-person medical care on the Fort Garry Campus until October, 2020.
University Health Service https://umanitoba.ca/student-supports/student-health-and-wellness
(204) 474-8411 (Business hours or after hours/urgent calls)

**Health and Wellness**
Contact our Health and Wellness Educator if you are seeking information on health topics, including physical and mental health concerns, alcohol and substance use harms, or sexual violence. You can also access peer support from a Healthy U peer health educator.
Health and Wellness Educator
https://umanitoba.ca/student/health-wellness/welcome-about.html
britt.harvey@umanitoba.ca
469 UMSU University Centre
(204) 295-9032

**Sexual Violence Resource Centre**
Contact SVRC if you have experienced sexual violence or are seeking information about how to help somebody else. SVRC provides inclusive, survivor-centred, trauma-informed services, such as consultation, referrals, safety planning, and a range of on-site supports, including counselling by Klinic.
Sexual Violence Resource Centre
svrc@umanitoba.ca
537 UMSU University Centre
(204) 474-6562 (Sexual Violence Intake and Triage Specialist)

**Student Services at Bannatyne Campus**
Contact SS@BC to access a full range of resources and supports for learners at the Rady Faculty of Health Sciences. Services are provided through a one-stop hub that includes a range of supports for personal and academic success, including counselling, mental health consultation, and spiritual care.
Student Services at Bannatyne Campus
https://umanitoba.ca/student-supports/student-services-bannatyne-campus
bcss@umanitoba.ca
S211 Medical Services Building
(204) 272-3190 (Intake and Triage Specialist)
Section (c)

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.

Section (d) University and Unit policies, procedures, and supplemental information available on-line:

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
  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](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/](http://umanitoba.ca/student/sexual-assault/)

For information about rights and responsibilities regarding **Intellectual Property** view the policy: [https://umanitoba.ca/admin/governance/governing_documents/community/235.html](https://umanitoba.ca/admin/governance/governing_documents/community/235.html)

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](mailto:student_advocacy@umanitoba.ca)

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**Using Copyrighted Material**

Please respect copyright. We will use copyrighted content in this course. I have ensured that the content I use is appropriately acknowledged and is copied in accordance with copyright laws and university guidelines. Copyrighted works, including those created by me, are made available for private study and research and must not be distributed in any format without permission. Do not upload copyrighted works to a learning management system (such as UM Learn), or any website, unless an exception to the **Copyright Act** applies or written permission has been confirmed. For more information, see the University’s Copyright Office website at [http://umanitoba.ca/copyright/](http://umanitoba.ca/copyright/) or contact um_copyright@umanitoba.ca.