Syllabus

PLNT 7120: Special Problems in Plant Sciences: Plant Growth and Development Impacts on Herbaceous Perennial Forage Quality, Biomass and/or Seed Production.

(Fall, 2022)
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**Course Details**

**Course Title & Number:** PLNT 7120: Special Problems in Plant Sciences

**Number of Credit Hours:** 3

**Class Times & Days of Week:** Times to be determined (tbd), 1 time per week

**Location for classes/labs/tutorials:** tbd

**Pre-Requisites:** none

**Instructor Contact Information**

**Instructor(s) Name & Preferred Form of Address:** Dr. D.J. Cattani, Doug

**Office Location:** Room 228 Agriculture

**Office Hours or Availability:** Appointments may be made for student consultations either after class or by email.

**Office Phone No.** 204 474-6071

**Email:** Doug.Cattani@umanitoba.ca
An attempt will be made to respond to all communications within 24 hours of receipt.

**Contact:** Contact by email, phone or in-person are acceptable

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**Course Description**

**U of M Course Calendar Description**
In this area duplicate the content from the U of M course catalogue. It provides continuity for the students who choose to take your course based on the description they read in the calendar. Also, add in any explicit or implicit requirements for the course.

**General Course Description**
Application of growth and development of herbaceous perennial species, as well as annual species, on the quality and quantity of forage produced for animal intake, biomass production and/or seed productivity. Emphasis will be placed upon the manipulation of plant growth to provide forage (annual or perennial) for a given animal production system (e.g. beef production, dairy production) and biomass production and/or seed production of herbaceous perennial species. A detailed understanding of growth and development of herbaceous perennial plants, including an understanding of the use of growth scales to aid in the assessment of plant stand characteristics as they relate to vegetative and reproductive quantity and quality. A discussion of agronomic practices that may be utilized to affect plant growth and development including fertilization, haying, grazing and other cultural practices will be entered upon.

**Course Goals**

To understand plant growth and development and how it can be applied to construct an effective feeding program, or a component of a system for animal production, for perennial biomass production and for seed production of herbaceous perennial species.

**Course Learning Objectives**

To acquire knowledge of plant growth and development to utilize in a bovine feeding system:

1) Interspecific differences in growth and development.
2) Intraspecific (cultivar or varietal) differences and how they may be utilized to fit production systems.
3) Plant development and quality characteristics for biomass quantity, quality and utilization.
4) Growth and development scales for quantification of development stage and its relationship to biomass quality.
5) Utilization of agronomic practices to manipulate plant development for herbaceous perennial production in an animal feeding regime.
6) Impact of phenological development and the impact on end-use (forage, feed, food and fibre).
7) Development of methodological parameters to capture phenological development stages.

**Textbook, Readings, and Course Materials**

Students will be provided papers to read prior to the class which will be discussed with respect to their applicability to the course objectives. Students will bring questions to class to ask with respect to the assigned papers.

**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.
**Course Technology**

There are no specific issues with hardware or software and this course. Muting of all other media with the exception of the method used to attend class to reduce disturbances during class.

**Expectations: I Expect You To**

I will treat you with respect and would appreciate the same courtesy in return. See Respectful Work and Learning Environment Policy.

At the end of this section, the policies and services students are expected to follow/utilize need to be included (Section 2.5 ROASS).

I expect you to follow these policies around Class Communication, Academic Integrity, and Recording Class Lectures.

**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.

**Where applicable:**

Group projects are subject to the rules of academic dishonesty;

Group members must ensure that a group project adheres to the principles of academic integrity;

Students should also be made aware of any specific instructions concerning study groups and individual assignments.

The limits of collaboration on assignments should be defined as explicitly as possible; and

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 permission (Douglas Cattani). Course materials (both paper and digital) are for the participant’s private study and research. Synchronous classes will be recorded and may be accessed through UMLeon.

**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.
Expectations: You Can Expect Me To
I will start class begin class on time (except if agreed upon by all participants). I will attempt to answer email enquiries as soon as possible but always within 48 hours.

CLASS SCHEDULE AND COURSE EVALUATION
This schedule is subject to change at the discretion of the instructor and/or based on the learning needs of the students but such changes are subject to Section 2.8 of ROASS.

Classes will be held in person at a time agreed upon by the students and instructor.

Evaluation:
Method %
Term Paper Draft (October 17, 2022) 15%
Term paper final: (December 12, 2022) 40%
Discussion/Participation 10%
Class presentations (3) 35%
consisting of:
   Journal Paper 1 @ 5%
   Journal Paper 2 @ 10%
   Term paper @ 20%

Total 100%

Lab Expectations
n/a

Lab Schedule
n/a

Grading
Indicate your grading scale. A sample is given below that you can adjust to your course expectations.

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Percentage out of 100</th>
<th>Grade Point Range</th>
<th>Final Grade Point</th>
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<tbody>
<tr>
<td>A+</td>
<td>93-100</td>
<td>4.25-4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>A</td>
<td>84-92</td>
<td>3.75-4.24</td>
<td>4.0</td>
</tr>
<tr>
<td>B+</td>
<td>78-83</td>
<td>3.25-3.74</td>
<td>3.5</td>
</tr>
<tr>
<td>B</td>
<td>72-77</td>
<td>2.75-3.24</td>
<td>3.0</td>
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ASSIGNMENT DESCRIPTIONS

Term draft paper of the proposed experiment will be due on October 17, 2022. An outline of the paper will be expected, with pertinent literature review and an outline of the proposed experiment.

Use a referencing style suitable to the journal to which the paper would be submitted.

Assignment Feedback

Draft assignment will be used to indicate to the student if they are on the correct path and that they have considered all potential issues.

Assignment Extension and Late Submission Policy

Assignment due date is final, a 10% penalty will be assessed for each day late.

UM Policies

As a student at 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 University of Manitoba (UM) website’s Governing Documents (https://umanitoba.ca/governance/governing-documents) is one important source of information, in particular the Academic and Students sections. The Student Advocacy office can also help you understand policies and procedures; find their information in the UM Learner Supports section below.

Academic Calendar

The Academic Calendar (https://umanitoba.ca/registrar/academic-calendar) is the University’s official publication containing course descriptions, program and graduation requirements, as well as UM and faculty/school-specific rules, regulations and policies. In particular, familiarize yourself with the sections University Policies and Procedures and General Academic Regulations.

Academic Integrity

In addition to reviewing your instructor’s academic integrity policy listed in their syllabus, you are expected...
to view the General Academic Regulation section within the Academic Calendar (https://umanitoba.ca/registrar/academic-calendar) and specifically read the regulation pertaining to Academic Integrity. Ask your instructor for additional information about demonstrating academic integrity in your academic work, and consult the following UM resources for more information and support:

- **Academic Integrity** (https://umanitoba.ca/student-supports/academic-supports/academic-integrity)
  - Student Resources (https://umanitoba.ca/student-supports/academic-supports/academic-integrity#resources-to-conduct-academic-work-with-integrity)
  - Academic Misconduct and How to Avoid It (https://umanitoba.ca/student-supports/academic-supports/academic-integrity#academic-misconduct-and-how-to-avoid-it)

- **Student Advocacy Office** (https://umanitoba.ca/student-supports/academic-supports/student-advocacy)

**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 (https://umanitoba.ca/copyright/) provides copyright resources and support for all members of the University of Manitoba community.

**Grade Appeals**

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 (https://umanitoba.ca/registrar/grades/appeal-grade) for more information including appeal deadline dates and the appeal form.

**Intellectual Property**

For information about rights and responsibilities regarding intellectual property view the Intellectual Property Policy (https://umanitoba.ca/governance/governing-documents/governing-documents-university-community#intellectual-property)

**Program-Specific Regulations**

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 website (https://umanitoba.ca/academics).

**Respectful Work and Learning Environment**

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 and respectful manner. Policies governing UM community behaviour include:

- **Student Discipline** (https://umanitoba.ca/governance/governing-documents-students#student-discipline)
- **Violent or Threatening Behaviour** (https://umanitoba.ca/governance/governing-documents-students#violent-or-threatening-behaviour)

The UM website, Engaging in Respectful Conduct (https://umanitoba.ca/student-supports/respectful-conduct), includes more details about expectations for behaviours related to university activities.

**Sexual Violence Policies**

The UM has several policies and procedures that deal with the rights and responsibilities of the University community with regards to all forms of sexual violence. For a comprehensive list of
policies and associated resources, visit the Sexual Violence Resource Centre’s information page (https://umanitoba.ca/student-supports/sexual-violence-support-and-education/sexual-violence-get-informed). Please note that there are many supports available in addition to these policy documents (see UM Learner Supports).

**Voluntary Withdrawal**
Voluntary withdrawal (VW) is a way for students to leave a class without academic penalty once the Registration Revision Period has ended. If you opt to voluntarily withdraw from a course, you will not be eligible for a refund and, if applicable, will still be required to pay any outstanding tuition fees for the course. On your transcript, the course you have withdrawn from will be listed; however, “VW” will appear in lieu of a grade. If you do not drop a course before the VW deadline, you will receive a final grade in the course on your transcript.

Please note that there are separate deadlines for dropping a course early in a term during the Registration Revision Period. Dropping a course means you are removing that course from your schedule, will not be charged tuition fees for that course, and the course will not appear on your transcript.

The Registrar’s Office website, Withdraw from a Course (https://umanitoba.ca/registrar/withdraw-course), includes more information on the different ways in which you can withdraw from a course and important dates and deadlines to do so.

**UM Learner Supports**

Below you will find a select list of important supports for learners at the UM, both academic supports and otherwise. For a complete listing of all learner supports at the University of Manitoba, visit the Student Supports website (https://umanitoba.ca/student-supports).

**Academic Advising**
Contact an Academic Advisor (https://umanitoba.ca/student-supports/academic-supports/academic-advising) for support with degree planning and questions about your academic program and regulations.

**Academic Learning Centre (ALC)**
The Academic Learning Centre (https://umanitoba.ca/student-supports/academic-supports/academic-learning) offers one-to-one tutoring, groups study sessions and workshops, as well as video and tip-sheet resources to help you throughout your academic program. All Academic Learning Centre programing, supports, and services are free for UM students.

Make an appointment for free one-to-one tutoring (https://umanitoba.ca/student-supports/academic-supports/academic-learning/tutoring-group-study#individual-tutoring).

**Content tutors** (over 90 UM courses) can help you understand concepts and learn problem-solving strategies. **Study skills tutors** can help you improve your skills such as time management and goal setting, reading and note-taking, as well as learning and test-taking strategies. **Writing tutors** can give you feedback on your academic writing, whether you are just getting started on a written assignment or already have a draft. **English as an Additional Language** specialist, Antoanela Denchuk, is available for one-to-one tutoring to help you improve your English-language academic writing skills. Use the drop-down menu, read the tutor biographies, and make an appointment for tutoring on the Academic Learning Centre schedule (https://manitoba.mywconline.com/).
Attend **Supplemental Instruction (SI)** (https://umanitoba.ca/student-supports/academic-supports/academic-learning/tutoring-group-study) sessions in historically difficult courses (including Chemistry, Engineering, and Computer Science). These free weekly review sessions are facilitated by a peer mentor who has previously taken the course and provide an opportunity to discuss course content, ask questions, compare notes, solve practice problems, and develop study strategies. See online for a list of SI courses and meeting times.

Register for an **Academic Success Workshop** (https://umanitoba.ca/student-supports/academic-supports/academic-learning/academic-success-workshops), where you can learn strategies to improve your writing and studying. More information on topics, dates, and registration, are found online.

Register for **Faculty of Graduate Studies Grad Steps Workshops** (https://umanitoba.ca/graduate-studies/student-experience/graduate-student-workshops). These workshops are specifically designed for students working towards Master's degrees or PhDs. More information on topics, dates, and registration can be found online.

Access the Academic Learning Centre’s collection of **videos and tip sheets** (https://umanitoba.ca/student-supports/academic-supports/academic-learning#tip-sheets-for-writing-and-study-skills) to help you with many of the academic tasks you’ll encounter in university.

**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.

**Basic Needs**
It can be difficult to learn and succeed in courses when you are struggling to meet your or your family’s basic needs. Several UM and community resources are listed below if you would benefit from support with regards to housing, food, finances, and/or childcare:

- **Housing**
  - UM Housing (https://umanitoba.ca/housing)
  - Winnipeg Rental Network (https://www.winnipegrentnet.ca/)
  - Manitoba Residential Tenancies Branch (https://www.gov.mb.ca/cca/rtb/)
  - HOPE End Homelessness Winnipeg Services & Supports (https://umanitoba.ca/housing)

- **Food**
  - Food Matters Manitoba (https://foodmattersmanitoba.ca/find-emergency-food-in-winnipeg/)

- **Finances**
  - Manitoba Student Aid (https://www.edu.gov.mb.ca/msa/)

- **Child Care**
  - UM Child Care (https://umanitoba.ca/about-um/child-care)
  - Manitoba Child Care Association (https://mccahouse.org/looking-for-child-care/)

**English Language Centre**
The English Language Centre (ELC) provides courses, tests, accommodations and individual support to students whose first language is not English in order to support academic success and participation in the University of Manitoba community.

Health and Wellness
Physical, mental, emotional, and spiritual health and wellness play a critical role in student success. See all of UM’s resource on their Health and Wellness website, and make note of several specific UM and community supports listed below.

**Winnipeg Urgent Physical and Mental Health Care**
If you are an adult experiencing a mental health or psychosocial crisis, contact the Klinic Community Health 24/7 crisis line at 204-786-8686, visit the Crisis Response Centre located at 817 Bannatyne Avenue, or contact the Mobile Crisis Service at 204-940-1781.

To speak with a nurse for guidance on what health-care path to take for the issue you are facing or for general information about health resources available in Manitoba, contact Health Links at 1-888-315-9257 (toll free).

If you need urgent medical care, visit the Winnipeg Regional Health Authority’s Emergency Department & Urgent Care Wait Times webpage for a list of locations and current wait times.

**Student Counselling Centre (SCC)**
The Student Counselling Centre provides free counselling and mental health support to UM, English Language Centre, and International College of Manitoba (ICM) students. We are open year-round, Monday through Friday from 8:30 am to 4:30 pm. Our commitment is to offer a support service to every student who contacts us.

Visit the SCC’s For Urgent Help webpage or the urgent care resources listed above if you require immediate support.

Visit the SCC’s Our Services webpage for more information on accessing a variety of services including individual counselling, counselling workshops and groups, support resources, and learning disability assessment services.

The SCC is located is located at 474 UMSU University Centre (Fort Garry Campus).

**Health and Wellness Office**
Students often juggle multiple demands, and we recognize that it can be difficult to find balance. For any changes you want to make to your health and wellness, the Health and Wellness Office at the University of Manitoba would like to support you in your journey. We are here to help you take control of your own health and make your own decisions. We are a judgment-free space and we avoid labels whenever possible. For more information, please visit the Health and Wellness Office website.

**Spiritual Care and Multifaith Centre**
Spiritual care services are available to all, whether you identify as spiritual, atheist, religious or agnostic. Spiritual Services (https://umanitoba.ca/student-supports/spiritual-services) also offer specific denominational support for certain religious groups and by Indigenous Elders-in-Residence.

**Student Support Case Management (SSCM)**

Contact the Student Support Case Management team (https://umanitoba.ca/student-supports/academic-supports/student-advocacy/case-management) 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.

**University Health Service (UHS)**

The University Health Service (https://umanitoba.ca/student-supports/health-wellness/university-health-service) offers a full range of medical services to students, including psychiatric consultation, via two health clinics:

- Fort Garry Campus: (204) 474-8411, ACW-Lot temporary trailer (behind the Isbister building)
- Bannatyne Campus: (204) 474-8411, P309 – Pathology Building

**Student Services at Bannatyne Campus**

Student Services at Bannatyne Campus (SSBC) offers a full range of mental health supports to students and residents in the Rady Faculty of Health Sciences, along with other academic and personal supports. Visit the SSBC website (https://umanitoba.ca/student-supports/student-services-bannatyne-campus) for a list of services available.

**Indigenous Students**

Staff, faculty and Elders are well-equipped to ensure your university experience is as beneficial, accessible, and successful as possible. Visit the Indigenous Student Experience (https://umanitoba.ca/indigenous/student-experience) website for more information on the supports and services available.

**International Students**

The transition to a new country and a new academic system can be both exciting and overwhelming. The International Centre (IC) is here to help you settle into life at University of Manitoba. Visit the International Students website (https://umanitoba.ca/current-students/international) for more information.

**Sexual Violence Support and Education**

Sexual violence affects people of all ages, sexual orientations, genders, gender identities, abilities and relationship statuses. At the U of M, we are committed to ensuring a respectful work and learning environment for all. We want to build a safe and inclusive campus community where survivors of sexual violence know they can receive the supports they need to succeed, both academically and personally.

The Sexual Violence Resource Centre (https://umanitoba.ca/sexual-violence), located at 537 UMSU University Centre (Fort Garry campus) provides support, resources, information and referral services for any student, faculty or staff member who has been affected by sexual violence.

**Student Accessibility Services (SAS)**

The University of Manitoba is committed to providing an accessible academic community. Student Accessibility Services (https://umanitoba.ca/student-supports/accessibility) 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 health, learning, medical, hearing, injury-related, visual) are invited to contact SAS to arrange a confidential consultation. SAS is located at S20 University Centre (Fort Garry Campus).

**Student Advocacy**

[Student Advocacy](https://umanitoba.ca/student-supports/academic-supports/student-advocacy) is a safe place for students. We help you navigate university processes and advocate for your rights as a student at UM. If anything in your personal or academic life is affecting your studies, contact our confidential intake assistant by phone (204-474-7423) or email ([stadv@umanitoba.ca](mailto:stadv@umanitoba.ca)).

**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](http://bit.ly/WcEbA1) can be found by subject.

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 [UM Libraries and Departments](https://libguides.lib.umanitoba.ca/c.php?g=298526) webpage. When working remotely, students can also receive help online, via the Ask-a-Librarian chat found on the [University of Manitoba Libraries' homepage](https://umanitoba.ca/libraries/)