NRI 7160 (graduate):
Permaculture Design Certificate Course for Prairie and Boreal Ecosystems
Location: Natural Resources Institute, University of Manitoba, 320-70 Dysart Rd., & Brokenhead Ojibway Nation (BON) Farm/Community Centre
2020 (Block Course – May 4-14 & some advanced readings)

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Description Permaculture is a whole-systems design approach that derives its concepts, ethics, principles, and methods from Indigenous peoples and time-tested systems to create sustainable human settlements and institutions. With its roots in horticulture and agriculture, permaculture design is interdisciplinary, touching on a wide range of subjects including ecology, regional planning, animal husbandry, architecture, environmental management systems, appropriate technology, and sustainable development. Permaculture design is a way of landscape planning applicable to scales from the home garden to the broad acre farm.

Course Credit 3 credit course (90 hour course) over 10 days (some readings must be done prior to the first full day class on May 4th)

Course Text Morrow, Rosemary. (2013). Earth User's Guide to Permaculture, 2nd Edition. Hants. UK: Hyden House.

International Permaculture Design Certificate
Students will receive a Permaculture Designer's Certificate with the successful completion of this course. This course will cover the internationally recognized Permaculture Designer Certification curriculum, and will involve classroom lectures, field trips, hands-on activities, experiential learning exercises, group discussions, readings, and student design projects and presentations. The class will be design intensive, utilizing graphic and verbal presentation skills in the student designs. It will involve research into other functioning permaculture systems as documented in literature, websites, and as observed in practice.

Course Topics
1) Permaculture Ethics and Principles
2) Permaculture Design Methodology
3) Principals of Natural Systems
4) Site Observation and Site Analysis, Reading Land Patterns
5) Water Harvesting, management, and Conservation
6) Soil Building, Erosion Control
7) Intensive Food Production: Urban, Garden, Farm,
8) Design of Appropriate Technology and Buildings
9) Mapping, Surveying, and Presentation
10) Forests Gardens, Agroforestry, Tree Crops, & Farm Animals
11) Community Design and Urban Planning
12) Organizational Structures and Community Economics

Course Daily Schedule
9:00-12:30 pm Permaculture Class (Lecture, hands on activities)
12:30-1:30 pm Lunch provided
1:30 – 5:30 Permaculture Class (Lecture and activities)

Mon. 4	Tues.5	Wed.6	Thurs.7	Fri.8	Mon. 10	Tue.11 & Wed. 12	Thur.13 &14
8:00 Morning Registration Shirley **9:00** Welcome, Orientation, Logistics & Introductions Review Highlights from Pre-Training	**8:00-12:15** Review Holmgren Principles -Water- *The Importance of Earthworks (Becky) Activity* **Using the ~A-Frame ~Transit ~Laser Level**	**8:00-12:15** BON Farm Tour and Client Interview with Soils *OMG…!!!*	**8:00-12:15** Urban Permaculture 1 hour **Residential Design Exercise** Our Role in Creating Permanent Cultures *The Heart of Permaculture*	**8:00-12:15** The Built Environment *Designing for Different Climates -Boreal - Prairie - Cold/Wet* Cob home Gaia Craft exercise Farming as Permaculturists	**8:00-12:15** Invisible Structures & Financial Permaculture Ben Law Livelihood Social Permaculture 5-Acre Design Exercise - Begins	**8:00-12:15** Wrap-up Course Pieces **Final Design Project Time**	**8:00-12:30** Agraria *Tying it All Together* International Permaculture & Your Permaculture life Wood & stone Certification
Hands On Farm –							
Lunch 12:30-1:30							
Ultimate Source of Abundance Examples of Permaculture Applied CSC – BO - Wood – The Global Gardener Bill Mollison	Clay Landscape Model Plants/Trees *~Functions, ~Layers ~Guilds* The Permaculture Design Process **Plant Guild Exercise**	Gardening & Other Food Production Methods Curriculum piece from Farm/ Garden Design Idea Plant Propagation *and Grafting Demonstration*	**Building community Social Perm** **Build Rocket Stove and Fire it up 45** Gaia Craft **Alternative Energy**	Food Forests & Forest Agriculture Healthy use of Animals in Permaculture Systems	**Ponds, Aquaculture & Aquaponics** B **5-Acre Design Exercise - Finish**	**Final Design Project Time** Final Design Presentation	Extra time as needed or for more hands on or field work. _____
5:30 off	5:30 off	5:30 off	5:30 off & 7:00 variety show at BON community centre or 70 dysart		7:00 pizza night at BON community centre	Rest? Party?	

Measurable Student Learner Outcomes
A primary focus of this course is for students to acquire the knowledge to design and implement a Permaculture system, with BON Farm as our focus site but also considering Meechim Farm at Garden Hill First Nation in the boreal forest as our second site.

Students will:
1. obtain a comprehensive academic understanding of Permaculture design principles and methodologies.
2. conduct a Permaculture site assessment and analysis.
3. present a site analysis both graphically and verbally.
4. design a site plan using Permaculture principles and methodology.
5. demonstrate comprehension of their site design verbally and graphically.
6. implement permaculture techniques for gardening, water harvesting, and improving soil fertility.
7. demonstrate and discuss permaculture ethics and principles to the level worthy of Permaculture Design certification.

Evaluation and Grading
Students grade will be determined by the following percentages:
- 10% Answer to Pre-training worksheet from book readings –May 4
- 10% Food for the day program – each person picks a day
- 20% Photojournal and verbal report in sharing circle – May 12-14th
- 10% Site Analysis – May 12
- 10% Conceptual Design – May 14
- 40% Final Design including write up of site analysis -10 to 20 page write up or film or art project that covers these aspects – May 20

GRADE NUMERICAL EQUIVALENT

A+	90 - $\geq$	4 (4.5)
A	85-89	4
B+	80-84	3.5
B	75-79	3.0
C+	70-74	2.5
C	65-69	2.0
D	60-64	1.0
F		0

Cost: $300 for Students in (note: a few volunteer opportunities available to cover these costs) and $750 for community members.

NOTE: Accommodation and boarding on farm or nearby lodging available for $30 to 100/night extra (limited spaces available).

All students are expected to:
- Undertake advance readings and viewings of videos prior to the first class.
- Attend each class more than one class requires a compelling reason (e.g., medical).
- Refrain from using disposable drink and food containers in class.

GENERAL (attendance, withdrawal, plagiarism)
For requirements regarding course attendance and withdrawals please see Section 6 in the General Academic Regulations and Requirements section of the University of Manitoba Graduate Calendar. For rules regarding plagiarism please see Section 7 in the General Calendar.

Referencing Style
Assignments should use the American Psychological Association (APA) reference style as outlined in the text: American Psychological Association (APA). (2009). Publication manual of the American Psychological Association (6th ed.). Washington, DC: APA.

Submission Guidelines
Please submit your paper by e-mail to s.thompson@umanitoba.ca

Assignment Grading Times
Your marks will be available two weeks after the submission of your assignment. Final grades will be posted in Aurora 3 weeks after the last day of class.

Assignment Extension and Late Submission Policy
- All assignments should be submitted by the due date listed in the course schedule. If an extension is required the student must inform the instructor in writing.
- Students who fail to submit work on time and do not ask for an extension are subject to the late assignment penalty. The penalty is a 5% per working day reduction in the value of the student's grade for up to five working days.

Policies Related to Student Discipline Academic Dishonesty: Plagiarism, Cheating and Examination Impersonation

You should acquaint yourself with the University's policy on plagiarism, cheating, and examination impersonation as detailed in

http://umanitoba.ca/faculties/graduate_studies/media/Academicintegrity200804.pdf
Please note that all sources used by direct quotation or by indirect use of others' ideas must be appropriately cited. Adequate attribution is required. All cases of plagiarism are required to be dealt with by the Dean of Graduate Studies.

Policy on Respectful Work and Learning Environment
http://umanitoba.ca/admin/governance/governing_documents/community/566.html

Inappropriate and Disruptive Student Behaviour
http://umanitoba.ca/admin/governance/governing_documents/students/279.html

Accessibility Policy for Student with Disabilities
http://umanitoba.ca/admin/governance/governing_documents/students/281.html

Student Services
The Learning Assistance Centre (LAC) offers services that may be helpful to you as you fulfill the requirements for this course. Through the LAC, you may meet with a study skills specialist to discuss concerns such as time management, reading and note-taking strategies, as well as test-taking strategies. You may also meet one-on-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. Writing tutors can also give you feedback if you submit a draft of your paper online. Please note that the online tutors require 48 business hours (i.e., Monday to Friday) to return your paper with comments. (201 Tier Building)

Writing Tutors [and Learning Skills Tutors] work on both the Fort Garry and Bannatyne Campuses. Tutors on the Fort Garry campus work in the Elizabeth Dafoe Library and the Learning Assistance Centre (201 Tier). Tutors on the Bannatyne campus work in 245 "T" wing (Basic Science Building). Check scheduled hours of availability on-line through the Learning Assistance Centre site (www.umanitoba.ca/student/u1/lac), or call 204-480-1481 (Fort Garry Campus) or 204-272-3190 (Bannatyne Campus).

The Virtual Learning Commons is a unique learning and social networking site at the University of Manitoba. Students can access a variety of Learning Assistance Centre resources on-line at www.umanitoba.ca/virtuallearningcommons. Of special interest are several links to excellent, brief, on-line tutorials on integrity in academic work (e.g., what is plagiarism? How do you paraphrase? What are appropriate citation formats?), and an Assignment Manager program that automatically creates a timetable for completion of each step in the writing process.

Student Accessibility Services (SAS) provides support and advocacy for students with disabilities of all kinds: hearing, learning, injury-related, mental health, medical, physical or visual. Students with temporary disabilities such as sprains and breaks are also eligible to use our services. SAS acts as a liaison between students and the faculty and staff of the University of Manitoba as well as support agencies within the province of Manitoba. Please phone: 204-474-6213 (voice) or 204-474-9690 (TTY) for service.

Student Counseling and Career Centre (SCC) offers individual, couple or family counseling in individual and groups formats. Please phone 204-474-8592 or visit SCCC at 474 University Centre.

University of Manitoba Libraries provides databases/search engines (Databases: SCOPUS, CINAHL, PUBMed, Google scholar) to search for journal articles required for graduate research.

The English Language Centre has workshop and programs in advanced academic English and is located at 520 University Centre.