

**Department of Environment and Geography, University of Manitoba**  
**Environmental Field Investigations**  
**ENVR 4020 (3 ch) or ENVR 4010 (1.5 ch)**  
**Winter 2016**

Instructor: Rick Baydack ([Rick.Baydack@umanitoba.ca](mailto:Rick.Baydack@umanitoba.ca))    255 Wallace    474-6776  
Classes: Workshops generally off-campus on dates/times listed in schedule

## **A. Goals:**

Environmental Field Investigations are 3 or 1.5 credit hour field courses in the Department of Environment and Geography that will be offered over the Winter 2016 term. The intent is to provide students with an understanding of, hands-on experience with, and adaptive management opportunities for, a wide range of field-oriented topics related to the environment and its management. The course will draw upon the expertise of various environmental specialists from government agencies, the private sector, and non-government organizations.

## **B. Objectives:**

Upon completion of this course, students will be able to:

1. Understand and participate in the design and delivery of field investigations for various environmental issues.
2. Assess and summarize perspectives about various environmental field investigations (6 or 3, depending on course in which student is enrolled) using an adaptive management approach.
3. Present a detailed oral description and adaptive strategies for an environmental field investigation of particular interest to you.

## **C. Course Content:**

The course will consist of visits to a number of 'field' activities in which students will take an active role in examining and assessing various approaches and strategies being used to investigate environmental parameters and issues. The schedule for these field activities will be dependent upon the availability of personnel from cooperating agencies and interest from students, and additional details or cancellations of activities will be updated throughout the term. Students should therefore become familiar with the UM Learn website (<https://universityofmanitoba.desire2learn.com>) in order to determine the most up-to-date information on activities. A sign-up process is available by emailing the course Instructor, or by using the 'Discussions' tab on the UM Learn site, with a **minimum of 3 days notice of attendance** (unless otherwise noted) in advance of each trip. In addition, note that each activity in the course outline has a website to which students are directed for additional information and in some cases, for personal registration, especially if the activity is organized by a non-University agency. Students are encouraged to try to attend as many activities as possible that do not conflict with their other academic and personal commitments (note that attendance at any activity is optional, but that at least 6 activities must be attended for the 3 ch courses, 3 for the 1.5 ch course). In addition, students are encouraged to locate and/or plan and attend other field-related environmental activities, and email the Instructor with details, or post dates/times for them on the UM Learn site for other students to consider. Students should provide notice of their transportation requirements and/or details of their personal vehicle availability to/from various activities outside of the City of Winnipeg. For any on-

campus or public events off campus (e.g. Fort Whyte, Nature Manitoba, Oak Hammock, etc.), students are able to register, and then simply attend and participate in the activity. You will not receive confirmation of your registration in such a case. However, for field-related events where there are logistical considerations (e.g., transportation, meals, accommodations), students who have registered will receive details roughly three days prior to the event. Therefore do not be alarmed if you have registered for an event, and have not received any feedback. You will receive information in due course. If a registration fee is required for any event, students must pay the charge, obtain an original receipt, and complete a UofM Expense Claim reimbursement form (available at [http://umanitoba.ca/admin/financial\\_services/media/Guest\\_and\\_Student\\_Travel\\_Form\\_June\\_2015\\_PDF.pdf](http://umanitoba.ca/admin/financial_services/media/Guest_and_Student_Travel_Form_June_2015_PDF.pdf)), and submit the receipt and form to the Instructor.

The course will emphasize hands-on experience with various environmental field investigations generally in a field workshop format, although some activities will be seminars, meetings or conference-based. As well, students will learn how to consider possible alternative management approaches by using an ‘adaptive assessment process.’ Discussion on the adaptive assessment process will take place in the first class, and also will be available by viewing a video that is on Reserve and can be viewed in the Science and Technology Library in Machray Hall. In their reports, students are encouraged to determine if (more effective) alternative strategies might be applied to the various field situations under consideration, and also to describe how their strategy could be tested for success against the status quo. Students are expected to locate background literature and/or web-based sources of information for each field investigation that will be summarized in their reports. Students will be evaluated through participation, reports, and an oral presentation.

Note that electronic submission of all reports and Powerpoints for the oral presentation should be done using the UM Learn site, and are due by April 12, 2016. The organizational meeting of the class will be held on Monday January 11, 2016 at 230 pm in 217 Wallace. If students are unable to attend, the Instructor should be contacted.

## **D. Evaluation**

- Participation 10%
- Summary and adaptive assessment of activities ( $\geq 1$  Mar 18/Apr12) 60%
- Oral Presentation on 1 activity (Apr 11 or 12) 30%

## **E. General**

Requirements for this course and rules regarding plagiarism may be found in the General Academic Regulations and Policy Section of the University of Manitoba Graduate and Undergraduate Calendars. Evaluative feedback will be provided upon request of the individual student before the voluntary withdrawal deadline date of March 18, 2016.

## **F. Grading Scale**

The grading scale to be used in this course is:

<b>A+</b>	<b>90-100</b>	<b>C+</b>	<b>65-69</b>
<b>A</b>	<b>80-89</b>	<b>C</b>	<b>60-64</b>
<b>B+</b>	<b>75-79</b>	<b>D</b>	<b>50-59</b>
<b>B</b>	<b>70-74</b>	<b>F</b>	<b>0-49</b>

## G. Preliminary Field Investigations Schedule (Jan–Mar 2016)

<u>Date</u>	<u>Theme</u>	<u>Location</u>	<u>Agency Rep</u>	<u>UM Rep</u>
Jan. 11 (230-4pm)	Course Organization ( <a href="http://umanitoba.ca/desire2learn.com">http://umanitoba.ca/desire2learn.com</a> )	217 Wallace		Baydack
Jan. 13 (8-10pm)	Backwoods Bonfire and Snowshoeing ( <a href="http://www.fortwhyte.org/calendar">http://www.fortwhyte.org/calendar</a> )	FortWhyte Alive		
Jan. 16 (7-10pm)	Banff Film Festival ( <a href="http://www.accmanitoba.ca/">http://www.accmanitoba.ca/</a> )	Burton Cummings Theatre		
Jan. 21 (7-10pm)	Astrophotography ( <a href="http://www.oakhammockmarsh.ca">www.oakhammockmarsh.ca</a> )	Oak Hammock Marsh Centre		
Jan. 22 (12-1pm)	Ecological Overview of Feral Pigs in Canada ( <a href="http://www.wildlife.org/canada">www.wildlife.org/canada</a> )	Webinar of The Wildlife Society, Canadian Section Preregistration required <a href="mailto:webinars.cstws@gmail.com">webinars.cstws@gmail.com</a>	Ryan Brook	Baydack
Jan. 22 (230-5pm)	Human Influences on Biological Organisms (Peregrine Falcons) ( <a href="http://www.parklandmews.com/">http://www.parklandmews.com/</a> )	Parkland Mews	Robert Wheeldon	McCance
Jan. 23 (1-3pm)	Snowshoe Workshop ( <a href="http://www.oakhammockmarsh.ca">www.oakhammockmarsh.ca</a> )	Oak Hammock Marsh Centre Preregistration required 204-467-3300		
Jan. 25 (230-4pm)	Environmental Enforcement ( <a href="http://www.ec.gc.ca/alef-ewe/">http://www.ec.gc.ca/alef-ewe/</a> )	217 Wallace	David Syzek	Baydack
Jan. 26 (730-10pm)	Astronomy Workshop ( <a href="http://www.naturemanitoba.ca/?q=calendar">http://www.naturemanitoba.ca/?q=calendar</a> )	Kelvin High School	Jay Anderson	
Jan. 29 (230-5 pm)	Assiniboine Park Zoo 'Behind the Scenes' ( <a href="http://www.assiniboineparkzoo.ca">www.assiniboineparkzoo.ca</a> )	Assiniboine Park	Stephen Petersen	McCance
Jan. 30 (9am-5pm)	Canadian Firearms Safety Course ( <a href="http://www.rcmp-grc.gc.ca/cfp-pcaf/safe_sur/cour-eng.htm">http://www.rcmp-grc.gc.ca/cfp-pcaf/safe_sur/cour-eng.htm</a> )	243 Wallace	Bob Austman	Baydack
Jan. 30 (12-2pm)	Fly Tying ( <a href="http://www.fortwhyte.org/calendar">www.fortwhyte.org/calendar</a> )	FortWhyte Alive Preregistration required 204-989-8355		
Jan. 31 (9am-5pm)	Winter Survival Course ( <a href="http://www.fortwhyte.org/calendar">www.fortwhyte.org/calendar</a> )	FortWhyte Alive Preregistration required 204-989-8355		
Jan. 31 (12-2pm)	Inuit Games ( <a href="http://www.fortwhyte.org/calendar">www.fortwhyte.org/calendar</a> )	FortWhyte Alive		

Feb. 1 (1-4pm)	Lab Necropsy of White-Tailed Deer ( <a href="http://www.iucn-whsg.org/node/768">http://www.iucn-whsg.org/node/768</a> )	TRAMPP Farms St. Adolphe	Vince Crichton Paul and Michelle Campeau	Baydack
Feb. 2 (10am-4pm)	World Wetlands Day ( <a href="http://www.oakhammockmarsh.ca">www.oakhammockmarsh.ca</a> )	Oak Hammock Marsh Centre		
Feb. 2 (730-10pm)	Native Ferns of Manitoba ( <a href="http://www.naturemanitoba.ca/?q=calendar">http://www.naturemanitoba.ca/?q=calendar</a> )	Kelvin High School	Richard Staniforth	
Feb. 5-7 (7 pm-4pm)	The Wildlife Society MB Chapter Get-Away <b>Preregistration and payment required by JAN 28 to <a href="mailto:twsm.mb.manitoba.chapter@gmail.com">twsm.mb.manitoba.chapter@gmail.com</a></b>	Camp Wannacumbac, Riding Mountain Park	Stephen Petersen	Baydack
Feb. 7 (1-3pm)	Planning Vegetable Gardens ( <a href="http://www.fortwhyte.org/calendar">www.fortwhyte.org/calendar</a> )	Fort Whyte Alive		
Feb. 8 (730-10pm)	Wild Turkeys in Manitoba ( <a href="http://www.naturemanitoba.ca/?q=calendar">http://www.naturemanitoba.ca/?q=calendar</a> )	Franco-Manitoban Centre	Brian Kiss	
Feb. 12 (or Mar. 4) (6-11am)	Wild Turkey Trapping and Banding ( <a href="http://www.gov.mb.ca/conservation/wildlife">www.gov.mb.ca/conservation/wildlife</a> )	SW Manitoba Specific Location TBA	Frank Baldwin Don Sexton	Baydack
Feb. 12 (230-5 pm)	Moose Predation/Parasitism ( <a href="http://www.gov.mb.ca/conservation/wildlife">www.gov.mb.ca/conservation/wildlife</a> )	217 Wallace	Vince Crichton	McCance
Feb. 13 (1-2pm)	Bird Nests ( <a href="http://www.oakhammockmarsh.ca">www.oakhammockmarsh.ca</a> )	Oak Hammock Marsh Centre	Paula Grief	
Feb. 14 (5-7pm)	Birds and Bees – Valentine’s Day ( <a href="http://www.fortwhyte.org/calendar">www.fortwhyte.org/calendar</a> )	FortWhyte Alive	Heather Hinan	
Feb. 16 (1-9pm)	CPR and First Aid Training ( <a href="http://www.proficient-training.com/">http://www.proficient-training.com/</a> ) Also online course option ( <a href="http://redcrosselearning.ca">http://redcrosselearning.ca</a> )	243 Wallace	Brian Derkach	
Feb. 16 (730-10pm)	Introduction to Backcountry Camping ( <a href="http://www.naturemanitoba.ca/?q=calendar">http://www.naturemanitoba.ca/?q=calendar</a> )	Kelvin High School	Sean Worden	
Feb. 17 (10am-4pm)	Manitoba GIS Users Group Annual Workshop ( <a href="http://www.mgug.ca/">http://www.mgug.ca/</a> )	Park Theatre	Jeremy Sewell	Walker
Feb. 19 (12-1pm)	Human Dimensions of Wildlife Management ( <a href="http://www.wildlife.org/canada">www.wildlife.org/canada</a> )	Webinar of The Wildlife Society, Canadian Section Preregistration required <a href="mailto:webinars.cstws@gmail.com">webinars.cstws@gmail.com</a>	Kristen Leong	Baydack

Feb. 18 (7-10pm)	Sketching the Night Sky ( <a href="http://www.oakhammockmarsh.ca">www.oakhammockmarsh.ca</a> )	Oak Hammock Marsh Centre		
Feb. 24 (12-5pm)	Environmental Careers Expo ( <a href="http://www.meia.mb.ca">http://www.meia.mb.ca</a> )	University Centre	MEIA Student Chapter	Baydack
Feb. 23 (730-10pm)	Owls of the World ( <a href="http://www.naturemanitoba.ca/?q=calendar">http://www.naturemanitoba.ca/?q=calendar</a> )	Kelvin High School	Christian Artuso	
Feb. 26 (230-4pm)	Manitoba Fishes ( <a href="http://www.gov.mb.ca/waterstewardship/fish/index.html">http://www.gov.mb.ca/waterstewardship/fish/index.html</a> )	217 Wallace	Patrick Nelson	McCance
Feb. 28 (1-3pm)	Seed Starting ( <a href="http://www.fortwhyte.org/calendar">www.fortwhyte.org/calendar</a> )	FortWhyte Alive	Kelly Leask	
Feb. 29 (7am-4pm)	Lake Winnipeg Commercial Fishing Industry Seminar and Net Lifting/Setting ( <a href="http://www.gov.mb.ca/waterstewardship/fisheries/commercial/commercial.html">http://www.gov.mb.ca/waterstewardship/fisheries/commercial/commercial.html</a> )	Lakeview Resort, Gimli	Ken Campbell Geoff Klein	Baydack
Mar. 1 (730-10 pm)	Shorebirds ( <a href="http://www.naturemanitoba.ca/?q=calendar">http://www.naturemanitoba.ca/?q=calendar</a> )	Kelvin High School	Rudolf Koes	
Mar. 4 (or Feb. 11) (6-11am)	Wild Turkey Trapping and Banding ( <a href="http://www.gov.mb.ca/conservation/wildlife/">www.gov.mb.ca/conservation/wildlife/</a> )	SW Manitoba Specific location TBA	Frank Baldwin Don Sexton	Baydack
Mar. 4 (230-4pm)	Manitoba Woodland Caribou ( <a href="http://www.gov.mb.ca/conservation/wildlife/">http://www.gov.mb.ca/conservation/wildlife/</a> )	217 Wallace	Dennis Brannen	McCance
Mar. 5 (12-4pm)	Open Fire Brewing ( <a href="http://www.fortwhyte.org/calendar">www.fortwhyte.org/calendar</a> )	FortWhyte Alive	Preregistration required 204-989-8355	
Mar. 8 (730-10 pm)	Migrating Hawks ( <a href="http://www.naturemanitoba.ca/?q=calendar">http://www.naturemanitoba.ca/?q=calendar</a> )	Kelvin High School	Ward Christianson	
Mar. 10 (830am-6pm)	Remediation and Prevention Workshop ( <a href="https://www.meia.mb.ca/eventinfo.php?ID=120">https://www.meia.mb.ca/eventinfo.php?ID=120</a> )	Victoria Inn		
Mar. 11 (230-5pm)	Manitoba Furbearers and Trapping ( <a href="http://www.gov.mb.ca/conservation/wildlife/trapping/trapmb/index.html">http://www.gov.mb.ca/conservation/wildlife/trapping/trapmb/index.html</a> )	217 Wallace	Barry Verbiwski Roger Toews	McCance
Mar. 13 (1-2pm)	Songbird Families ( <a href="http://www.oakhammockmarsh.ca">www.oakhammockmarsh.ca</a> )	Oak Hammock Marsh Centre		

Mar. 14 (730-10pm)	Mysteries of Long-Distance Songbird Migration	Franco-Manitoban Centre	Kevin Fraser	
		<a href="http://www.naturemanitoba.ca/?q=calendar">http://www.naturemanitoba.ca/?q=calendar</a>		
Mar. 15 (730-10 pm)	Genetics of Giant Pumpkins	Kelvin High School	Milan Lukes	
		<a href="http://www.naturemanitoba.ca/?q=calendar">http://www.naturemanitoba.ca/?q=calendar</a>		
Mar. 17 (7-10pm)	Spring Constellations	Oak Hammock Marsh Centre		
		<a href="http://www.oakhammockmarsh.ca">www.oakhammockmarsh.ca</a>		
Mar. 18 (230-5pm)	Urban Owls	Meet at 217 Wallace	Christian Artuso	McCance
		<a href="http://www.gov.mb.ca/conservation/wildlife/spmon/birds/owl.html">http://www.gov.mb.ca/conservation/wildlife/spmon/birds/owl.html</a>		
Mar. 19 (1-3pm)	Maple Syrup Workshop	Oak Hammock Marsh Centre		
		<a href="http://www.oakhammockmarsh.ca">www.oakhammockmarsh.ca</a> Preregistration required 204-467-3300		
Mar. 21 (730-10pm)	Film – Private Lives of Wild Creatures	Franco-Manitoban Centre		Baydack
		<a href="http://www.naturemanitoba.ca/?q=calendar">http://www.naturemanitoba.ca/?q=calendar</a>		
Mar. 22 (730-10pm)	History of Bison in Manitoba	Kelvin High School	Randy Mooi	
		<a href="http://www.naturemanitoba.ca/?q=calendar">http://www.naturemanitoba.ca/?q=calendar</a>		
Mar. 26 (7pm-9pm)	The Wildlife Society Annual General Meeting	Fort Whyte Alive	Stephen Petersen	Baydack
		<a href="http://www.wildlife.org/manitoba">www.wildlife.org/manitoba</a>		
Apr. 1 (12-1pm)	Aboriginal Traditional Knowledge in Wildlife Mgt.	Webinar of The Wildlife Society, Canadian Section	Donna Hurbert	Baydack
		<a href="http://www.wildlife.org/canada">www.wildlife.org/canada</a> Preregistration required <a href="mailto:webinars.cstws@gmail.com">webinars.cstws@gmail.com</a>		
Apr. 4 (1-4pm)	Small Mammal Trapping	TRAMPP Farms St. Adolphe	Monica Reid Paul & Michelle Campeau	Baydack
		<a href="http://con102.blogspot.ca/2014/07/small-mammal-trapping-techniques-for.html">http://con102.blogspot.ca/2014/07/small-mammal-trapping-techniques-for.html</a>		