Syllabus – Fall 2014

Theory Wed/Fri 11:35am – 12:55pm Burnside Hall 511	**Instructor:** Dr. Pablo Arroyo **Email:** pablo.arroyo@mcgill.ca
Laboratory sections: Mon: 2:35pm – 5:25pm **OR** Thu: 2:35pm – 5:25pm	**Office:** Burnside Hall 515 **Office hours:** by appointment

***Note**: I do not read my McGill University e-mails in the evening or on weekends. I use e-mail for course administrative purposes only. I do not provide advice or directions on the assignments or the project by *e-mail*. If you need assistance with assignments **please see the TA** during their office hours, or come and see me during my office hours. If you cannot make it to my office hours for a legitimate reason – e.g. scheduling conflicts with classes, contact me by *e-mail* to make an appointment. On weekdays I will make every attempt to respond to your e-mail within 24 hours.

Course Overview

This class is a conceptual and quantitative overview of remote sensing and the underlying physical principles behind the interaction between light at different wavelengths and various materials (natural and man-made). It covers ground-based, aerial and satellite systems, and the electromagnetic spectrum, from the visible to microwaves. Emphasis will be placed on applications of remotely sensed data in geography including land cover change and ecological processes with examples from other fields.

Co-requisite: GEOG 201 or permission of instructor. Basic knowledge of Math and Statistics is necessary to successfully complete the course.

Teaching Assistant: TBA

Recommended Textbook: Lillesand, Kiefer and Chapman. *Remote Sensing and Image Interpretation*, 6th Edition. 2008. John Wiley & Sons Inc.

Additional required readings throughout the term will be presented in the lectures and posted on MyCourses

Evaluation

1. Lab Assignments: 30% (6 laboratory assignments)
2. Midterm: 20%
3. In class quizzes: 20% (5 quizzes)
4. Paper discussion/participation (Attendance): 5%
5. Final project: 25%
    a. Proposal: 5%
    b. Presentation 5%
    c. Written document 15%

No extra work will be accepted to supplement the grade obtained on the quizzes, assignments, midterm, or final project.

Course policies

1. Consistent attendance is expected for lectures (more than 3 unjustified absences would result in a for your attendance grade). Exceptions will be made for students with justified absences, for example after submitting a medical note.

2. Laboratories will begin on **September 11th** with the Thursday lab section. Attendance to the laboratory session is compulsory and there is no obligation from the instructor or the TA to provide additional guidance for laboratories if a student was absent with an unjustified absence. Exceptions will be made for students with justified absences, for example after submitting a medical note.

3. Students are required to sign-up for one of the two laboratory sections (either Mondays 2:35pm – 5:25pm OR Thursdays 11:30am- 2:25pm). Changes from one lab section to the other are not allowed, without written consent from the instructor.

4. Late assignments will be penalized by 10% cumulative per 24 hr period unless permission to miss the deadline has been received in writing from the instructor. Lab assignments will be handed in via MyCourses. Any assignment not uploaded by the due date **and** time (EST) is considered late. Technical issues that arise for students uploading work at the last minute are solely the responsibility of the student.

5. Excuses for a missed midterm exam will only be accepted in cases of medical necessity (physician's note required) or personal emergency. The midterm exam will be held during regular lecture hours, room TBD.

6. Lecture notes will not be provided online, it is the student's responsibility to come to class and prepare her/his own notes. Only some diagrams and equations might be provided as online material.

Mobile computing and communications devices are permitted in class under the following condition(s):

- *When the "No technology time" is not in effect (e.g. not permitted during exams, unless otherwise stated)*
- *Only for the specified use; e.g. note taking, consulting online resources*
- *Personal activities such as updating social networking sites (e.g. Facebook, GTalk, Jabber, ICQ, IRC, AIM, MSN, etc) phone text messaging, online shopping, emailing, etc., etc., are strictly prohibited during class.*
- *If you need to text for any reason, please leave the classroom and/or laboratory and come back once you are done.*

Electronic Resources

Canada Centre for Remote Sensing. *Tutorial: Fundamentals of Remote Sensing*
Available as a downloadable PDF from:
http://ccrs.nrcan.gc.ca/resource/tutor/fundam/index_e.php

Supplemental readings will also be posted on WebCT. The material in these readings will not be directly examined but is intended as a resource for further study or clarification through examples.

Other matters

McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see www.mcgill.ca/students/srr/honest/ for more information).

L'université McGill attache une haute importance à l'honnêteté académique. Il incombe par conséquent à tous les étudiants de comprendre ce que l'on entend par tricherie, plagiat et autres infractions académiques, ainsi que les conséquences que peuvent avoir de telles actions, selon le Code de conduite de l'étudiant et des procédures disciplinaires (pour de plus amples renseignements, veuillez consulter le site www.mcgill.ca/students/srr/honest/)

In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded.

In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change.

The course outline is a contract among students, instructors and McGill University. In compliance with McGill regulations, the evaluation scheme shall be applied uniformly to all students in the class. Under no circumstances can this distribution of grades be reweighed nor can special arrangements be made with any individual student.

If you have a disability please contact the instructor to arrange a time to discuss your situation. It would be helpful if you contact the Office for Students with Disabilities at 514-398-6009 before you do this.

Additional policies governing academic issues which affect students can be found in the McGill Charter of Students' Rights (Chapter One of the Student Rights and Responsibilities Handbook available as a PDF on www.mcgill.ca/files/secretariat/Student-Handbook-2008-English.pdf).