Master of Environmental Studies (MES) in Sustainability Management

SCHOOL OF ENVIRONMENT, ENTERPRISE AND DEVELOPMENT
FACULTY OF ENVIRONMENT, UNIVERSITY OF WATERLOO

GOVERNING THE COMMONS

Course # SUSM 675 / ERS 675 / INDEV 475

Winter Term 2021

THIS COURSE IS OFFERED ENTIRELY ONLINE
(SYNCHRONOUS AND ASYNCHRONOUS COMPONENTS)

Course Instructor: Dr. Prateep Kumar Nayak
Class Time: Tuesdays 9 – 10.30 AM (Synchronous Meet)
Class Location: Online / Remote
Office hours: by appointment ONLY
Office Location: EV3-4221 (Online)
E-mail: pnayak@uwaterloo.ca
Other contact: MS Teams (pnayak)
Phone: 519-888-4567 X. 33112

COURSE OVERVIEW
Individuals, communities and nations in all regions of the world are experiencing the effects of climate and human induced changes in their physical and social environments. The highest and the most direct impact of these changes are seen in the case of commons (e.g., fisheries, shellfish beds, coastal spaces, lagoons, mangroves, range lands, forests, groundwater, freshwater systems, irrigation systems, urban spaces, etc.) upon which humans depend for their social, cultural and economic needs. When impacted by a variety of drivers, commons not only go through a process of change in their biophysical characteristics, but the resulting impacts linger on to the social, cultural, political and economic lives (e.g., loss of livelihoods, subsistence, institutions, disempowerment, loss of rights, cultural identity) of the commons-dependent population. In a similar sense we all, as humans, are linked to some form of commons in our daily lives - we either impact the commons or get impacted by it or experience the both. Given this background, sustaining the commons remains an ongoing challenge that requires enhanced understanding and innovative governance approaches at all levels of society. The aim of this course is exactly to do this, i.e., creatively engage students in furthering their understanding and knowledge on commons and deliberate on novel governance approaches though which commons can be sustained.

So, now, what is commons? Commons is generally understood as a resource that is held by an identifiable community of interdependent users who exclude outsiders while regulating use by members of the local community. Within the community, rights to the resource are unlikely to be either exclusive or transferable; they are often rights of equal access and use, and held as a collective under well-defined institutional arrangements and rule system. Commons have two essential characteristics: *Excludability* pertains to the decision on who is not and who is a user (question of exclusion and inclusion) and *Subtractability* deals with the rules of distribution and allocation within the users without which exploitation by one user will reduce resource availability for others. In other words, in a commons situation, the exclusion or the control of access of potential users is difficult and each user is capable of subtracting from the welfare of all other users. Therefore, commons are defined as those 'in which 1) exclusion of beneficiaries through physical and institutional means is especially costly, and 2) exploitation by one user reduces resource availability for others'. Both these characteristics of commons add to their complexity, generate new contestations and help explain various critical perspectives and dynamic processes associated with the commons. Important to note here that commons are influenced by the prevalent social, cultural, economic, ecological and political history and traditions of the specific contexts within which they are situated and impacts of several internal and external drivers across multiple scales. This makes the commons dynamic over time, consistent with the literature that suggests that commons institutions may go through processes of development and decline. The dynamic nature and fluctuations associated with commons make it imperative to understand commons as a process, rather than a regime that is spatially and temporally fixed.

Objectives
At the end of this course, students will have (a) a firm grasp of the meaning and complexity of commons and its various components through studying theory, concepts, scholars and practice; (b) a critical understanding of interdisciplinary / multidisciplinary approaches to the study of commons; (c) a good grasp of the main issues involved in the debates around commons; (d) an analytical knowledge of the key drivers and actors influencing the making or breaking of the commons; (e) a solid understanding of the links between commons and its role in sustainable development; (f) a capacity to critically analyze challenges facing the commons in different parts of the world and the nature of struggles, strategies adopted by communities, governments and civil society to deal with it; (g) a solid perspective on how to sustain the commons and carry them into the future through appropriate governance arrangements.

Pedagogy
The course will run in a seminar style with appropriate use of online synchronous and asynchronous lectures. The basic pedagogy of the course will include an interesting mix of conceptual and empirical information delivered through evidence-based learning methods and structured lectures.

Synchronous component: The class will meet once every week synchronously for one and half hours to deliberate on one particular topic or a set of related issues on commons. The synchronous time will be used for brief lectures, discussions / Q&A on posted readings and recorded lectures, occasional guest speakers, student presentations and clarifications on assignments. Class seminars and discussions will also revolve around a set of required and

recommended readings wherein students will be encouraged to participate in a meaningful way. ***The synchronous sessions will be recorded and posted to LEARN as reference material for the course.***

Asynchronous component: The asynchronous component includes recorded course material being posted to LEARN in advance of the class. These materials will be in addition to the weekly required readings listed in the course syllabus. While recorded material (such as lectures by the instructor, videos, audios, etc.) will be posted to LEARN by the instructor, it is the responsibility of the student to obtain listed weekly required readings through appropriate online library access, preferably via UW library sources. Students must read and review all material on LEARN including the weekly readings prior to the synchronous meeting of the class on Tuesdays as they will be the basis for discussions.

Required course material
There is no required textbook for this course. Readings from journal articles, books, internet sources will be assigned on a weekly basis. It is the responsibility of students to access all reading materials via the University of Waterloo library or other online sources.

Assessment of Learning

Assignment	Weight %	Due Date
Reflecting on the Commons 1 & 2 One-page Learning Diary	10 + 10 = 20	February 23 (Week 1 – 5) April 13 (Week 6 – 11) *(Dropbox – 11.59 PM)*
Oral presentation on weekly readings materials	10%	One / two students each week *Post recorded videos to Dropbox 24 hours prior to class*
Oral presentation on commons cases	20%	Student presentations in Week 11 and Week 12 *Synchronous session*
Commons Major Paper: **Step 1** (Abstract)	10%	February 9 *(Dropbox 11.59 PM)*
Commons Major Paper: **Step 2** (Research essay)	40%	April 16 *(Dropbox – 11.59 PM)*
Total	**100%**	

* SPECIFIC INSTRUCTIONS ON EACH OF THE ASSIGNMENTS WILL BE GIVEN IN THE FIRST DAY OF CLASS ON THE 12TH JANUARY AND RELEVANT INFORMATION AND MATERIAL WILL BE POSTED ON LEARN.

WEEKLY TOPICS

WEEK 1 (January 12): Introduction: What is commons? Why commons?

Synchronous Meet:
- **Course introduction and overview**
- **Discussion on what is commons**

Required Readings:
Hardin, G. 1968. The Tragedy of the Commons. Science 162(3859): 1243 – 1248.

John M. Anderies and Marco A. Janssen. 2016. Sustaining the Commons. Second Edition. Center for Behaviour, Institutions and the Environment, USA: Arizona State University. *READ CHAPTER 1 – Why Study the Commons?*

WEEK 2 (January 19): Concepts, theories and major debates around commons.

Synchronous Meet:
- **Lecture and discussion**
- **Q&A on student presentations** on weekly readings materials

Required Readings:
Feeny, D, F. Berkes, B. J. McCay and M. Acheson. 1990. The tragedy of the commons: Twenty-two years later. *Human Ecology* 18 (1):1-19.

Ostrom, E., J. Burger, C. B. Field, R. B. Norgaard and D. Policansky. 1999. Revisiting the commons: Local lessons, global challenges. *Science* 284:278-282.

John M. Anderies and Marco A. Janssen. 2016. *Sustaining the Commons*. Center for Behaviour, Institutions and the Environment, USA: Arizona State University. *READ CHAPTER 2 -Defining Institutions; CHAPTER 10 - Classifying Rules*

WEEK 3 (January 26): Concepts, theories and major debates around commons.

Synchronous Meet:
- **Lecture and discussion**
- **Q&A on student presentations** on weekly readings materials

Required Readings:
John M. Anderies and Marco A. Janssen. 2016. *Sustaining the Commons*. Center for Behaviour, Institutions and the Environment, USA: Arizona State University. *READ CHAPTER 7 - Design Principles to Sustain the Commons*

Frank van Laerhoven and Elinor Ostrom. 2007. Traditions and Trends in the Study of the Commons. International Journal of the Commons 1(1): 3-28.

Johnson, C. 2004. Uncommon ground: The "poverty of history" in common property discourses. *Development and Change* 35(3): 407-433.

Nayak, P. K. and F. Berkes. 2011. Commonisation and decommonisation: Understanding the processes of change in Chilika Lagoon, India. Conservation and Society 9:132 - 145.

WEEK 4 (February 2): Typology of commons: From resource commons to knowledge commons and everything in between and beyond.

Synchronous Meet:
- **Lecture and discussion**
- **Guest Speaker:** Prof. Neil Craik, School of Environment, Enterprise and Development, University of Waterloo on *International Law and the Global Commons*.
- **Q&A on student presentations** on weekly readings materials

Required Readings:
Brunnée, J. 2008. Common Areas, Common Heritage, and Common Concern. In: Daniel Bodansky, Jutta Brunnée, and Ellen Hey (eds.) *The Oxford Handbook of International Environmental Law* UK: Oxford University Press.

Ranganathan, S. 2016. Global commons. *The European Journal of International Law*. 27(3): 693-717

Foster, Sheila R. and Iaione, Christian (2016) "The City as a Commons," Yale Law & Policy Review: 34 (2): Article 2. Available at: http://digitalcommons.law.yale.edu/ylpr/vol34/iss2/2 *(Read selectively)*

Bunzl, M., 2009. Climate and the Commons: A reappraisal. *Climatic change* 97(1): 59 - 65.

Charlotte Hess. 2012. The Unfolding of the Knowledge Commons. *St Antony's International Review* 8(1): 13 - 24.

Speaker recommended readings:
TBD

WEEK 5 (February 9): Commons and Property rights system.

Synchronous Meet:
- **Lecture and discussion**

- **Guest Speaker:** Dr Sajida Sultan, Climate Smart Agriculture Specialist, Food and Agriculture Organisation, Pakistan – *TBD*
- **Q&A on student presentations** on weekly readings materials

Required Readings:
Schlager, E. and Ostrom, E. 1992. Property Rights Regimes and Natural Resources: A Conceptual Analysis. *Land Economics* 68(3): 249 - 262.

Ostrom, E. 2000. Private and Common Property Rights. Unpublished mimeo, available online at: https://www.sfu.ca/~allen/common%20property.pdf (accessed 2 January 2021).

Fennell, L. A. (2011). Ostrom's Law: Property rights in the commons. International Journal of the Commons, 5(1), 9–27. DOI: http://doi.org/10.18352/ijc.252

Marschke, M., Armitage, D., Van An, L., Van Tuyen, T., & Mallee, H. (2012). Do collective property rights make sense? Insights from central Vietnam. International Journal of the Commons, 6(1), 1–27. DOI: http://doi.org/10.18352/ijc.334

Ribot, J. C. and Peluso, N. L. 2003. A Theory of Access. *Rural Sociology* 68: 153 - 181.

Speaker recommended readings:
TBD

READING WEEK BREAK FEBRUARY 15 - 19

WEEK 6 (February 23): The dynamic context of the commons and multilevel drivers: From policies to market and climate

Synchronous Meet:
- **Lecture and discussion**
- **Guest Speaker:** Prof. Simron Singh, School of Environment, Enterprise and Development, University of Waterloo on *Decommonising the Nicobar Islands: The role of Humanitarian Aid as a global driver of change after the 2004 tsunami.*
- **Q&A on student presentations** on weekly readings materials

Required Readings:
McCarthy, J., 2005. Commons as counterhegemonic projects. *Capitalism Nature Socialism* 16(1): 9 - 24.

Randhir, T. O. 2016. Globalization impacts on local commons: Multiscale strategies for socioeconomic and ecological resilience. *International Journal of the Commons*. 10(1): 387 - 404.

Mansfield, B. 2014. Neoliberalism in the oceans: ''Rationalization,'' property rights, and the commons question. *Geoforum* 35: 313 - 326

Berkes, F. 2008. Commons in a Multi-level World. *International Journal of the Commons* 2(1): 1 - 6.

Speaker recommended readings:
Patankar, V., D'Souza, E., Alcoverro, T. & Arthur, R. 2015. Erosion of Traditional Marine Management Systems in the Face of Disturbances in the Nicobar Archipelago. Human Ecology, Vol. 43 (5): 697 – 707.

Chandi, M., Mishra, C., Arthur, R. 2015. Sharing Mechanisms in Corporate Groups may be More Resilient to Natural Disasters than Kin Groups in the Nicobar Islands. Human Ecology. Vol. 43 (5): 709 – 720.

WEEK 7 (March 2): The practice of commons

Synchronous Meet:
- **Lecture and discussion**
- **Guest Speaker:** Subrata Singh, Foundation for Ecological Security, India – *TBD*
- **Q&A on student presentations** on weekly readings materials

Required Readings:
Poteete, A., et al., 2010. Working Together: Collective Action, the Commons, and Multiple Methods in Practice. Princeton University Press, Princeton, NJ. *(Selected chapters only – TBD)*

Ostrom, E., 1999. Coping with tragedies of the commons. *Annual review of political science* 2(1): 493-535.

Kerr, J. 2007. Watershed Management: Lessons from Common Property Theory. International Journal of the Commons, 1(1).

Speaker recommended readings:
TBD

WEEK 8 (March 9): Contestations, struggles and politics around the commons: Whose commons? Who benefits? Who controls?

Synchronous Meet:
- **Lecture and discussion**
- **Q&A on student presentations** on weekly readings materials

- **Guest Speaker:** Dr Sherman Farhad, Universidad de Córdoba, *Spain on Politics in the commons; The case of rice, fish and tourism in Isla Mayor, Andalusia, Spain.*
- **Special Event** 'Making Commons Dynamic' (TBD)

Required Readings:

Escobar, A. 1998. Whose knowledge, whose nature? Biodiversity, conservation, and the political ecology of social movements. *Journal of political ecology*, 5(1), pp.53-82.

Diegues, A. C. 1998. Social movements and the remaking of the commons in the Brazilian Amazon. Privatizing nature: political struggles for the global commons, pp.54-75.

John M. Anderies and Marco A. Janssen. 2013. *Sustaining the Commons*. Center for Behaviour, Institutions and the Environment, USA: Arizona State University. *READ CHAPTER 3 - Action Arenas and Action Situations.*

Nayak, P. K. and F. Berkes. 2008. Politics of Co-optation: Community forest management vs. joint forest management in Orissa, India. *Environmental Management* 41(5): 707 - 718.

Speaker recommended readings:
TBD

ADDITIONAL SCHEDULED BREAK 15 – 16

WEEK 9 (March 23): Governing the Commons: Key principles, institutions, interactions and policies

Synchronous Meet:
- **Lecture and discussion**
- **Guest Speaker:** Prof. Derek Armitage, School of Environment, Resources and Sustainability, University of Waterloo on *Governance and the Commons in a Multi-Level World*
- **Q&A on student presentations** on weekly readings materials

Required Readings:

Folke, C., Hahn, T., Olsson, P. and Norberg, J. 2005. Adaptive Governance of Social-Ecological Systems. Annual Review of Environment and Resources. 30:441-473.
https://doi.org/10.1146/annurev.energy.30.050504.144511

Armitage, D. 2007. Governance and the Commons in a Multi-Level World. International Journal of the Commons, 2(1): 7–32. DOI: http://doi.org/10.18352/ijc.28

Dietz,T., Ostrom, E. and Stern. P. 2003. The struggle to govern the commons. Science 302:1907 -1912. DOI: http://doi.org/10.1126/science.1091015

John M. Anderies and Marco A. Janssen. 2016. *Sustaining the Commons*. Center for Behaviour, Institutions and the Environment, USA: Arizona State University. *READ CHAPTER 14 - Think Globally, Act Locally.*

Speaker recommended readings:
TBD

WEEK 10 (March 30): Approaches to keeping commons as commons: From CBRM/CBC and co-management/ Adaptive management to protected areas

Synchronous Meet:
- **Lecture and discussion**
- **Q&A on student presentations** on weekly readings materials
- **Guest Speaker:** Prof. Nandita Basu, Earth and Environmental Sciences, University of Waterloo on *Mapping the Commons in Rapidly Changing Landscapes: Role of the ancient tank irrigation systems in increasing climate change adaptability*

Required Readings:
Berge, E. 2006. Protected areas and traditional commons: values and institutions. Norsk Geografisk Tidsskrift-*Norwegian Journal of Geography* 60(1): 65 - 76.
https://doi.org/10.1080/00291950600548907

Armitage, D.R., Plummer, R., Berkes, F., Arthur, R.I., Charles, A.T., Davidson-Hunt, I.J., Diduck, A.P., Doubleday, N.C., Johnson, D.S., Marschke, M. and McConney, P., 2009. Adaptive co-management for social–ecological complexity. Frontiers in Ecology and the Environment, 7(2), pp.95-102. https://doi.org/10.1890/070089

Nayak, P. K., Armitage, D. 2018. Social-ecological regime shifts (SERS) in coastal systems. Ocean and Coastal Management 161 (2018) 84 -95.
https://doi.org/10.1016/j.ocecoaman.2018.04.020

West, P., Igoe, J. and Brockington, D. 2006. Parks and peoples: The social impact of protected areas. *Annu. Rev. Anthropol.*, 35: 251 - 277.
https://doi.org/10.1146/annurev.anthro.35.081705.123308

Speaker recommended readings:
TBD

WEEK 11 (April 6): Commons as complex social-ecological system

Guest Speaker: Prof. Fikret Berkes, Distinguished Professor Emeritus, University of Manitoba on *Commons as complex social-ecological system* (Recorded talk).

Synchronous Meet:
- **Lecture and discussion**
- **Student presentations** on commons case studies (several students)

Required Readings:
Ostrom, E. 2009. A general framework for analyzing sustainability of social-ecological systems. *Science* 325(5939): 419 - 422.

Folke, C. 2007. Social-ecological systems and adaptive governance of the commons. *Ecological Research* 22(1): 14 - 15.

John M. Anderies and Marco A. Janssen. 2013. Sustaining the Commons. Center for Behaviour, Institutions and the Environment, USA: Arizona State University. *READ CHAPTER 12 - Feedbacks and Stability and CHAPTER 13 - Coupled Infrastructure Systems.*

Speaker recommended readings:
TBD

WEEK 12 (April 13): Future of the commons: Understanding commons as a process through the lens of commonisation and decommonisation

Synchronous Meet:
- **Lecture and discussion**
- **Student presentations** on commons case studies (Several students)

Required Readings:
Nayak, P. K. and Berkes, F. (2021). Framing Commons as a Process: The Rudiments of Commonisation and Decommonisation. In: Nayak. P. K. (Ed.). Making Commons Dynamic: Understanding Change Through Commonisation and Decommonisation. London: Routledge. Pp. 3 - 23.

Ostrom, E., M. A. Janssen, J. M. Anderies. 2007. Going beyond panaceas. *Proceedings of the National Academy of Science* 104 (39): 15176 - 15178.

Berkes, F. 2015. Coasts for People: Interdisciplinary Approaches to Coastal and Marine Resource Management. UK: Routledge. *Read CHAPTER 5 - Can Commons be managed?*

John M. Anderies and Marco A. Janssen. 2013. *Sustaining the Commons*. Center for Behaviour, Institutions and the Environment, USA: Arizona State University. *READ CHAPTER 15 - Challenges Ahead.*

Important Information

Late policy: *Assignments are to be handed as instructed in course outline and on the date highlighted above.* You are expected to take account of the possibility of computer or printer failure in planning your time. Emailed or faxed assignments will not be accepted. The penalty for late assignments is **5 %** of the total possible mark per day, including weekends and holidays. I will not accept assignments more than 5 days after the due date unless we have a prior arrangement.

When You Cannot Meet a Course Requirement Due to Illness or Other Reasons: There will be no unpenalized extensions on assignments except for illness, severe personal extenuating circumstances, or weather emergencies. When you find yourself unable to meet a course requirement because of medical, compassionate or other reasons, please advise me in writing by ACE email; make sure to include your full name in your message. Where possible, you must contact me in advance of the assignment due date, but otherwise as soon as possible after the due date. As a rule, you must provide appropriate documentation, for example, a note from your doctor indicating the dates during which you were ill, and describing the severity of your illness.

University Policies

Unclaimed assignments will be retained until one month after term grades become official in Quest. After that time, they will be destroyed in compliance with UW's confidential shredding procedures.

Using UW-LEARN course website: Users can login to LEARN via: http://learn.uwaterloo.ca/. Use your WatIAM/Quest username and password.

Academic Integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. www.uwaterloo.ca/academicintegrity/

All students are encouraged to visit the on-line tutorial at http://www.lib.uwaterloo.ca/ait/(see 'Check your understanding') to learn more about what constitutes an academic offence.

Research Ethics: The 'University of Waterloo requires all research conducted by its students, staff, and faculty which involves humans as participants to undergo prior ethics review and clearance through the Director, Office of Human Research and Animal Care (Office). The ethics review and clearance processes are intended to ensure that projects comply with the Office's Guidelines for Research with Human Participants (Guidelines) as well as those of provincial and federal agencies, and that the safety, rights and welfare of participants are adequately protected. The Guidelines inform researchers about ethical issues and procedures which are of concern when conducting research with humans (e.g. confidentiality, risks and benefits, informed consent process, etc.). If the development of your research proposal consists of research that involves humans as participants, the please contact the course instructor for guidance and see http://iris.uwaterloo.ca/ethics/

Note for students with disabilities: The Office for Persons with Disabilities (OPD), located in Needles Hall, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the OPD at the beginning of each academic term.

Mental health: The University of Waterloo, the Faculty of Environment and our Departments consider students' well-being to be extremely important. We recognize that throughout the term students may face health challenges - physical and / or emotional. **Please note that help is available**. Mental health is a serious issue for everyone and can affect your ability to do your best work. Counselling Services http://www.uwaterloo.ca/counselling-services is an inclusive, non-judgmental, and confidential space for anyone to seek support. They offer confidential counseling for a variety of areas including anxiety, stress management, depression, grief, substance use, sexuality, relationship issues, and much more.

Religious Observances: Please inform the instructor at the beginning of term if special accommodation needs to be made for religious observances that are not otherwise accounted for in the scheduling of classes and assignments.

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70 – Student Petitions and Grievances, Section 4, www.adm.uwaterloo.ca/infosec/Policies/policy70.htm. When in doubt please contact your Undergraduate Advisor for details.

Discipline: A student is expected to know what constitutes academic integrity, to avoid committing academic offence, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. For information on categories of offences and types of penalties, students should refer to Policy 71, Student Discipline, www.adm.uwaterloo.ca/infosec/Policies/policy71.htm. For typical penalties, check Guidelines for Assessment of Penalties, www.adm.uwaterloo.ca/infosec/guidelines/penaltyguidelines.htm

Appeals: A decision made or penalty imposed under Policy 70 - Student Petitions and Grievances (other than a petition) or Policy 71 – (Student Discipline) may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to Policy 72 (Student Appeals) www.adm.uwaterloo.ca/infosec/Policies/policy72.htm

Communications with Instructor and Teaching Assistants: All communication with students must be through either the student's University of Waterloo email account or via Learn. If a student emails the instructor or TA from a personal account they will be requested to resend the email using their personal University of Waterloo email account.

Intellectual Property: Students should be aware that this course contains the intellectual property of their instructor, TA, and/or the University of Waterloo. Intellectual property includes items such as:

-Lecture content, spoken and written (and any audio/video recording thereof);
-Lecture handouts, presentations, and other materials prepared for the course (e.g., PowerPoint slides);
-Questions or solution sets from various types of assessments (e.g., assignments, quizzes, tests, final exams); and
-Work protected by copyright (e.g., any work authored by the instructor or TA or used by the instructor or TA with permission of the copyright owner).

Course materials and the intellectual property contained therein, are used to enhance a student's educational experience. However, sharing this intellectual property without the intellectual property owner's permission is a violation of intellectual property rights. For this reason, it is necessary to ask the instructor, TA and/or the University of Waterloo for permission before uploading and sharing the intellectual property of others online (e.g., to an online repository). Permission from an instructor, TA or the University is also necessary before sharing the intellectual property of others from completed courses with students taking the same/similar courses in subsequent terms/years. In many cases, instructors might be willing to allow distribution of certain materials. However, doing so without expressed permission is considered a violation of intellectual property rights.

Please alert the instructor if you become aware of intellectual property belonging to others (past or present) circulating, either through the student body or online. The intellectual property rights owner deserves to know (and may have already given their consent).

Strongly recommended sources on writing skills
To further hone your skills, I strongly recommend the two sources below to all students.
- *Writing Effective Essays and Reports*, by Rob de Loe (free online resource): http://www.environment.uwaterloo.ca/u/rdeloe/writing_booklet/
- Improve your grammar (free online resource): www.grammarbook.com

Recording Lectures:
-Lectures recorded by the instructor will be available to the students enrolled in this course. Any other form of recording is only allowed with explicit permission of the instructor of the course.
-If allowed, video recordings may only include images of the instructor and not fellow classmates.
-Posting of videos or links to the video to any website, including but not limited to social media sites such as: facebook, twitter, etc., is strictly prohibited.

Consequences of Academic Offences:

Students are expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for their actions. Students who are unsure whether an action constitutes an offense, or who need help in learning how to avoid offenses (e.g., plagiarism, cheating) or about rules for group work / collaboration should seek guidance from the course professor, TA, academic advisor, or the Undergraduate Associate Dean.

For information on categories of offenses and types of penalties, students should refer to Policy #71, Student Academic Discipline,
http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm
Within FES, those committing academic offences (e.g. cheating, plagiarism) will be placed on disciplinary probation and will be subject to penalties which may include a grade of 0 on affected course elements, 0 on the course, suspension, and expulsion.

Students who believe that they have been wrongfully or unjustly penalized have the right to grieve; refer to Policy #70, Student Grievance,
http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm

Grades

The following Faculty of Environment guidelines are useful in interpreting your grade (see also https://uwaterloo.ca/environment/undergraduate/student-support/exams-and-grades).

80 – 100: Student has demonstrated a full understanding of the subject matter, has capacity to analyze, and has demonstrated critical thinking, shows evidence of creative thinking, familiarity with literature and previous work in the area, highly developed communication and presentation skills. The work is of outstanding quality according to the criteria established for the evaluation.

70-79: Student has shown good comprehension of subject matter, evidence of critical and creative thought, familiarity with literature and previous work in the subject area, competence in communication and presentation skills, but none of the above to the degree found in the 'A' category. The work is of very good quality according to the evaluation criteria.

65-69: Student has demonstrated some understanding of subject matter and can assimilate and communicate basic aspects of the subject matter. The work is of satisfactory or adequate quality according to evaluation criteria.

50-64: Student has demonstrated minimal or weak understanding of the subject matter, poorly developed communication skills, inability to apply subject matter understanding in other contexts, and little evidence of critical or creative thinking. The work is of unsatisfactory but passable quality according to evaluation criteria.

0-49: Inadequate understanding of subject matter, failed to complete course requirements, no demonstration of critical thought, communication skills very poor. The work is clearly of unacceptable quality according to evaluation criteria.