

School of Environment, University of Toronto

CCP 402 GHG Accounting and Reporting

COURSE SYLLABUS

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COURSE DESCRIPTION

This course will cover important principles and concepts of greenhouse gas (GHG) accounting and reporting at both the organization and project levels. Students will learn to navigate the technical requirements of the major regulated and voluntary GHG cap and trade and offset schemes, while learning how GHG accounting and reporting considerations affect the environment. By the end of the course, students should be capable of overseeing the development and verification of an organizational GHG inventory report or a GHG emissions reduction report.

COURSE OBJECTIVES

The objectives of this course are to:

- Introduce the concepts of GHG accounting and reporting at the organization and project levels
- Describe the science of climate change and the role of accounting and reporting in climate change mitigation
- Provide an introduction to the concepts and development of organizational GHG inventories
- Introduce the concepts and principles of GHG projects and offset generation
- Provide an overview of corporate GHG strategy development

COURSE OUTCOMES

By the end of this course, the student should be able to:

- Explain the differences between organizational and project accounting
- Understand the relationships and distinctions between internal abatements, GHG projects, allowances and credits
- Navigate the technical requirements of the major regulated and voluntary GHG cap and trade and offset schemes
- Understand how GHG reporting and accounting considerations affect the environment
- Recognize the benefits of corporate accounting
- Understand the project cycle and its implications on project planning
- Understand inventory and project quality considerations
- Oversee the development and verification of a corporate GHG inventory report or a GHG emissions reduction report

COURSE MATERIALS

Required Course Texts

There is no required text for this course.

Each module will have an associated PowerPoint slide deck and one or more documents (standards, regulations, guidelines, etc.) from the field of GHG accounting and reporting that students are required to read in preparation for the online discussions and the course assignments.

Recommended Texts

The Greenhouse Gas Protocol (GHG Protocol) Corporate Standard, Revised Edition. Available at <http://www.ghgprotocol.org/standards/corporate-standard>

The Greenhouse Gas Protocol Corporate Standard, Revised Edition (commonly referred to as simply the “GHG Protocol”) is the most widely used international accounting tool for government and business leaders to understand, quantify, and manage greenhouse gas emissions. It is available as a free download.

ISO Standard 14064 Part 1: Specification with Guidance at the Organization Level for Quantification and of Greenhouse Gas Emissions and Removals

ISO Standard 14064 Part 2: Specification with Guidance at the Project Level for Quantification, Monitoring and Reporting of Greenhouse Gas Emission Reductions or Removal Enhancements

ISO Standard 14064 Part 3: Specification with Guidance for the Validation and Verification of Greenhouse Gas Assertions

The ISO suite of GHG standards is available to students free of charge through the U of T library system. This is a great opportunity for you to review a top standard on GHG accounting and reporting that is normally only available for a fee.

To access the standards:

1. To read the files, it's necessary to use Internet Explorer, and to install this plugin, called File Open: (<http://plugin.fileopen.com/Default.aspx?bhcp=1>)
2. Link to CSA Standards via the U of T Library: <http://simplelink.library.utoronto.ca/url.cfm/41238>
3. The above link will direct you to the CSA Subscription Website via the University Library. Click the “Start” button and a list of Standards folders will appear. Select the Folder titled “Environmental” and a list of documents will come up. The three parts of ISO 14064 are found on the third page of this section (items 21-30). Click the view button next to the Standard you wish to view, and the document will open

Additional Readings

Additional material will be assigned and available through electronic links or in .pdf format.

You may need to download the free version of adobe reader if you currently do not have this (see <http://www.adobe.com/products/acrobat/readstep2.html> for link to free adobe reader download).

Keeping up with the readings is essential. In order to participate effectively in class interactions, please have the assigned readings completed early in the week in which they are assigned.

ASSIGNMENTS, GRADES AND ASSESSMENT

Grades are based on your writing and critical thinking ability, participation in both the discussion forums and live chats, and level of group contribution to various projects.

Assignment	Due Date	Weight
Short Essay 1	February 12	10%
Take-Home Exam	March 4	10%
Short Essay 2	March 26	10%
Participation in Discussion Forum	Ongoing	30%
Participation in Synchronous Discussions	Ongoing	5%
Preliminary to the Long Essay	April 7	5%
Final Long Essay	April 19	30%

There are two short essays, one take-home exam, a preliminary to the long essay (outline), and one long essay due in the final week.

The short essays will be based on the required and additional readings from the course, and will allow the student to synthesize materials in a critical and succinct manner. Essays will average 1000 words each. The purpose of these essays is for you to improve your writing and critical thinking skills, and to explore the content of the course in a formal manner.

The longer essay will be a research paper in which you will take a case study from the readings or from your personal or professional experience and apply the concepts learned in the course to your chosen case. You will receive clear instructions on both the short and long essays once the course has started.

The short 24 hour take-home exam will evaluate your growing knowledge and will be a series of questions to be answered in paragraph form based on course content in combination with peer-reviewed articles and/or government documents.

Overall assessment

This course requires that you maintain 70% or greater in the course work for continuation in the course. There is an expectation for a high level of quality in the work produced by the student. For evaluation purposes, work will be graded under the following criteria:

Distance Education Certificate Program Grade Scale

Letter Grade Scale	Numerical Scale of Marks
A +	90-100%
A	85-89%
A -	80-84%
B+	77-79%
B	73-76%
B-	70-72%
FZ	0-69%

STUDENT OBLIGATIONS

- a) Students are expected to participate "in class" every week. Participation is 35% of your overall mark and will be based on regular contributions to all discussions, so do participate. Rubrics on the measure of quantity and quality of your participation in the discussion forum will be used for evaluation.

Promptness and Initiative	Does not respond to most postings; rarely participates freely	Responds to most postings several days after initial discussion; limited initiative	Responds to most postings within a 24 hour period; requires occasional prompting to post	Consistently responds to postings in less than 24 hours; demonstrates good self-initiative
Delivery of Post	Utilizes poor spelling and grammar in most posts; posts appear "hasty"	Errors in spelling and grammar evidenced in several posts	Few grammatical or spelling errors are noted in posts	Consistently uses grammatically correct posts with rare misspellings
Relevance of Post	Posts topics which do not relate to the discussion content; makes short or irrelevant remarks	Occasionally posts off topic; most posts are short in length and offer no further insight into the topic	Frequently posts topics that are related to discussion content; prompts further discussion of topic	Consistently posts topics related to discussion topic; cites additional references related to topic
Expression Within the Post	Does not express opinions or ideas clearly; no connection to topic	Unclear connection to topic evidenced in minimal expression of opinions or ideas	Opinions and ideas are stated clearly with occasional lack of connection to topic	Expresses opinions and ideas in a clear and concise manner with obvious connection to topic
Contribution to the Learning Community	Does not make effort to participate in learning community as it develops; seems indifferent	Occasionally makes meaningful reflection on group's efforts; marginal effort to become involved with group	Frequently attempts to direct the discussion and to present relevant viewpoints for consideration by group; interacts freely	Aware of needs of community; frequently attempts to motivate the group discussion; presents creative approaches to topic

- b) Students are also expected to meet deadlines for written assignments. The assignments will have specific due dates. If you are unable to meet one of the deadlines (for a legitimate reason such as illness), please email me before the deadline at aaron.schroeder@utoronto.ca

If you do NOT notify me of a late assignment in advance, I will still accept your paper, but 25% of the final mark will be deducted from the shorter essay and 50% for the longer essay.

Forum Etiquette

In discussion forums, remember to *think, discuss, and debate* from a multitude of perspectives. Both the instructor and the student will use language that is scholarly and professional. Express yourself *clearly, accurately, and in an intellectual* rather than in a personal fashion.

Discussion forums are designed for you to ask questions and gain further knowledge. Remember to reason intelligently with the instructor and other students. Please feel free to give your view or interpretation based on your own experiences.

Develop *awareness* of your own biases and make conscious efforts to ameliorate them. Keep in mind that the course materials may use jargon and technical terms that are not familiar to you. Seek to understand the subtleties of these new terms to gain a deeper understanding of the material being presented. Please ask about concepts or terms that you do not understand.

Remember, if you have a question, it is likely someone else has the same question. Also, be conscious of the language you use when you speak about race, ethnicity, and gender. And be careful to avoid any bigoted or exclusive language.

Students who express themselves *inappropriately* or attack others personally in the discussion forums will lose their points for participation, and possibly their privilege to continue. Most students are considerate and respectful of others, but every now and then, someone is abusive and it ruins the experience for everyone.

Synchronous Discussions (Chats)

The synchronous live chats will involve scheduled times for the class to meet on-line together to review questions related to the readings, and to provide a more informal basis to discuss concerns and questions over material as it relates to current world situations. You may also find the live chat area useful when working with other students on assignments - please feel free to do so.

COURSE SCHEDULE

The course includes ten modules through the period January 26 through April 19, 2015. There are two reading weeks during this period. See the School of Environment – Course Schedules/Deadlines:

<http://learn.environment.utoronto.ca/home/distance-education/course-schedulesdeadlines.aspx>

Each module will become available on Wednesday morning. The discussion forum for the module will become available the *following* Wednesday, so you will have a full week to review the module materials before you are expected to participate in the forum. The exception is the first module – the forum will open immediately and run for just over a week.

MODULES

MODULE 1 – Introduction (Monday, January 26 – Tuesday, January 27)

In this first module, I will introduce myself and discuss the concept of “GHG accounting and reporting.” I would also like to know about your background in the environmental and GHG fields (if any) and why you are interested in pursuing this course. You will carry this out in the week 1 discussion board.

Note: The forum discussion for this module will open on Monday, January 26 and run through Tuesday, February 3.

MODULE 2 – Essential Carbon Accounting and Reporting Concepts and the Environment (Wednesday, January 28 – Tuesday, February 3)

In this module, we will review the basics of the science that underlies the greenhouse effect and climate change so that we can understand how decisions made about GHG accounting and reporting have direct effects on the amount of anthropogenic (human-caused) GHG released into the atmosphere. We will also explore in more detail the meanings of GHG accounting and GHG reporting and introduce some important terms that will be used throughout the remainder of this course.

**MODULE 3 – Corporate GHG Accounting and Reporting – Introduction
(Wednesday, February 4 – Tuesday, February 10)**

In this module, we will introduce the concept of organizational-level accounting and reporting. We will discuss how corporate standards and protocols define the scope and methodologies for quantifying emissions.

**MODULE 4 – Corporate GHG Accounting and Reporting – Accounting
(Wednesday, February 11 – Tuesday, February 24 – note reading week February 16 – 20)**

In this module, we will examine what is involved in planning and designing and inventory, along with how to choose organizational and operational boundaries. We will also look at the relationship between inventory quantification, uncertainty, and overall inventory quality.

**MODULE 5 – Corporate GHG Accounting and Reporting – Reporting
(Wednesday, February 25 – Tuesday, March 3)**

In this module, we will examine the form and contents of the GHG inventory report, and discuss verification of inventory reports.

**MODULE 6 – Project GHG Accounting and Reporting – Introduction
(Wednesday, March 4 – Tuesday, March 10)**

In this module, we will introduce important concepts in GHG project accounting, including the baseline, additionality, leakage and permanence. We will also look at the concept of retiring credits, and discuss the differences between voluntary and regulated offset projects.

**MODULE 7 – Project GHG Accounting and Reporting – Accounting
(Wednesday, March 11 – Tuesday, March 24 – note reading week March 16 – 20)**

In this module, we will examine the GHG project cycle and examine important topics in GHG project accounting, including how to quantify emissions associated with the project and baseline, how to identify the baseline, and how to calculate the emission reduction.

**MODULE 8 – Project GHG Accounting and Reporting – Reporting
(Wednesday, March 25 – Tuesday, March 31)**

In this module, we will discuss the two reports associated with GHG projects, along with their associated assurance engagements: the GHG Project Plan (or project document), along with validation; and the GHG Report, along with verification.

**MODULE 9 – GHG Strategies
(Wednesday, April 1 – Tuesday, April 7)**

In this module, we will introduce the development of GHG strategies by organizations. GHG strategies can involve either planning the reduction of GHG emissions that are seen as a liability, or leveraging an advantageous position relative to GHG emissions.

**MODULE 10 - Final Work and Wrap-up
(Wednesday, April 8 – Tuesday, April 14)**

In this final wrap-up module, we will wrap up the course by using the discussion forum to review any outstanding questions you may have. As part of the final module, students will also complete and submit their final papers.