

## GEOGRAPHY AND PLANNING

## GPHY 314 – Climate Change



<b>Contact Time</b>	Two 1.5-hour lectures per week Weekly 1-hour tutorial										
<b>Format</b>	Lectures, quizzes, and other assessments										
<b>Class Assessment</b>	<table> <tr> <td>In-class activities</td><td>2 X 5% each</td></tr> <tr> <td>Weekly quizzes</td><td>10 X 5% each</td></tr> <tr> <td>Bi-weekly reflections</td><td>6 X 5% each</td></tr> <tr> <td>Tutorial participation</td><td>10 X 1% each</td></tr> <tr> <td colspan="2">No Final Exam</td></tr> </table>	In-class activities	2 X 5% each	Weekly quizzes	10 X 5% each	Bi-weekly reflections	6 X 5% each	Tutorial participation	10 X 1% each	No Final Exam	
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**COURSE OVERVIEW**

This course introduces students to the science of global climate change and explores potential outcomes and political aspects that surround the topic of climate change today. The course aims to provide students with a sound sense of background on how the climate system works and how the scientific community uses models, observations, and theory to assess changes, causes and impacts of climate through different time scales. A focus will be placed on past and present evidence of climate change, but some of the potential social, economic, and environmental consequences of future climate change are later explored in the course. Attention will be drawn to the latest research on climate change as well as the evolution of scientific data and conclusions that have emerged over the past decades. A focus will be placed on understanding climate change in the context of the complicated media environment that has emerged over the past decade.

**COURSE TOPICS**

- What is climate change?
- Scientific denial
- Earth's radiation balance
- Climate history of the Earth
- Human and natural influences on climate
- Indicators of modern climate change
- Projected changes to the Earth's climate
- Global impacts of climate change
- Canadian impacts of climate change
- Climate adaptation and mitigation
- Communication of climate science

**COURSE READINGS**

**Required:** Dessler, A. 2021. Introduction to Modern Climate Change. Third Edition, Cambridge University Press. E-book available via the campus bookstore. Note: The older 2nd edition of Introduction to Modern Climate Change is also a suitable alternative. (Estimated cost for paperback: \$50-\$60).