



DENIAL101x

Making Sense of Climate Science Denial

Welcome to DENIAL101x

Our course will provide you with the tools and knowledge to help you better understand and respond to climate science denial. DENIAL101x will explain the science surrounding climate change, introduce you to the most common climate myths, identify the techniques used by those myths and give you the opportunity to apply your learning by identifying and responding to climate myths found in today's media.

The University of Queensland, in partnership with the Global Change Institute at UQ, is offering this course via the edX platform, and we invite you to participate in the online discussions and engage with fellow learners from across the globe.

DENIAL101x recommends basic high school science as a prerequisite.

Learning Goals and Objectives

The purpose of DENIAL101x is to increase understanding of climate science denial and to equip students with the critical thinking skills required to identify and refute climate myths.

Upon successfully completing this course, students will:

- recognise the social and psychological drivers of climate science denial;
- better understand climate change: the evidence that climate change is happening, that humans are causing it and the potential impacts of climate change on the environment and society;
- be able to identify the techniques and fallacies that climate myths employ to distort climate science; and
- effectively debunk climate misinformation.

The DENIAL101x Team

The DENIAL101x team is made up of scientists, researchers, professors and experts from Australia, the United Kingdom, Europe, the United States and Canada who are passionate about climate science.

In a truly collaborative effort, we have developed lectures and activities to engage students with the science and enable them to respond to climate myths using evidence. We have also conducted and included over 75 interviews with notable experts in climate science to add even more depth to the course. Our team contributes to the Skeptical Science website at skepticalscience.com.

The DENIAL101x team is led by John Cook, a research assistant professor at the Center for Climate Change Communication at George Mason University. When this course was developed, he served as a Climate Communication Fellow for the Global Change Institute at The University of Queensland in Brisbane, Australia. You can read more about our team by viewing the Contributor tab within edX.

Pathways to Learning

Denial101x provides students with a diverse collection of materials to increase knowledge about both climate science and the psychology of denial and enable application of that knowledge. In order to provide learning experiences for students at a variety of levels, our course contains features that should engage students for approximately 2 to 4 hours per week.

The course materials, which include short lectures, video mash-ups of interviews with noted experts, full interviews with some of those same experts, activities, quizzes and peer assessment, could seem overwhelming to a student. Therefore, we've identified the pathways to learning found below to help you navigate this rich content.

PATHWAY #1: THE ESSENTIALS

This pathway will give you a broad understanding not only of the science involved in climate change but also of the common fallacies that are used to reject the science. By following this pathway, you will gain knowledge that will help you to complete the debunking activity that is assigned during Week 6 of the course.

Within this pathway to learning, we would recommend:

- Viewing lectures found within each week
- Completing pre- and post-lecture activities as well as course surveys
- Participating in discussion forums
- Viewing expert interview mash-ups
- Completing end-of-week quizzes
- Completing the debunking peer assessment activity

PATHWAY #2: DIGGING DEEPER

This pathway will take you beyond the essentials to help you better understand the true scope and nature of climate science and climate science denial. We would encourage you to follow this pathway if you are interested in gaining a more thorough understanding of climate science and climate science denial.

Within this pathway to learning, we would recommend completing all of the items listed in The Essentials pathway as well as:

- Viewing all bonus materials
- Participating extensively in discussion forums
- Completing any advanced activities
- Reviewing and reading references found in each week

There's no rule stating that you may only choose one of these two pathways. As you work through the content of Denial101x, you may find that some topics or sections are more interesting or relevant for you. When you encounter those sections, feel free to dig deeper and engage more fully.

Course Schedule

INTRODUCTION TO THE COURSE

WEEK 1: UNDERSTANDING THE CLIMATE CONTROVERSY

During the first week of the course, we introduce the course content, interact with each other and complete an introductory survey. The week continues with an exploration of scientific consensus, the drivers and psychology of climate science denial and an overview of the controversy surrounding this topic.

WEEK 2: GLOBAL WARMING IS HAPPENING

In week two, we look at the indicators of global warming and myths related to temperature and glaciers.

WEEK 3: WE ARE CAUSING GLOBAL WARMING

Week three focuses on the ways in which humans cause climate change and the myths associated with the greenhouse effect and the rise in carbon dioxide.

WEEK 4: THE PAST TELLS US ABOUT THE FUTURE

This week examines the history of climate change in order to model future climate change. We also address myths related to models.

WEEK 5: WE ARE FEELING THE IMPACTS OF CLIMATE CHANGE

Week five covers climate feedbacks and the impacts of climate change on the environment, society and the weather.

WEEK 6: RESPONDING TO DENIAL

The final week of the course looks more closely at the psychology of science denial and debunking techniques. We also complete a peer assessment that asks students to practice debunking strategies on real myths that can be found in today's media.

Honour Code and Academic Integrity

This course is offered online and we encourage collaboration and help between students, but please avoid asking for and posting final answers. Violations of the honour policy undermine the purpose of education and the academic integrity of the course. We expect that all work submitted will be a reflection of one's own original work and thoughts.

Additionally all students are expected to follow the edX Rules of Online Conduct, available on the edX website at <https://www.edx.org/edx-terms-service>.

What We Mean When We Say Denial and Misinformation

In this course, we use the term denial to refer to a process, and we do not use it as a label.

Specifically, we're talking about the psychological process of denial, and in the course we look at the scientific research into what drives people to reject scientific evidence. This allows us to explore how cognitive biases result in the various techniques of science denial. Only then can we develop a framework for the different fallacies appearing in the most common myths about climate change. The biases and the framework we use are discussed in detail within Week 1 of the course.

In this course, we also talk about misinformation, which refers to factually incorrect information. However, in psychology, misinformation does not necessarily imply intent to deceive. This course will examine the psychological processes that can lead to a person genuinely believing misinformation. Misinformation is to be distinguished from disinformation, which is false information created intentionally to deceive people.

Course Marking

In order to receive a passing mark in course, you must achieve an overall mark of 70%, and all assignments must be completed by the date the course closes.

The following categories make up the assessment for the course:

PARTICIPATION	6%	Each week contains opportunities for you to interact with other students in the course and respond to topical poll questions. Your participation in these activities will count toward your final mark in the course and you can register that participation by ticking the participation box found in each Weekly Wrap Up.
SURVEYS	4%	At the start and end of the course are surveys that you can complete to share a little bit about yourself and your opinions about topics connected to climate change. Your completion of these surveys contributes to your overall mark in the course.
WEEKLY QUIZZES	60%	At the end of each week of content, you will find a series of questions that check your understanding of key terminology or concepts and require you to apply that understanding in new situations and to new problems.
PEER ASSESSMENT	30%	At the end of the course, there is a peer assessment activity. In this assessment, you will mark practice essays to apply your knowledge about debunking and then write your own debunking essay. You will mark your peers' essays using a rubric while they, in turn, mark your essay. You will receive points toward your overall mark in the course by participating in all elements of this assessment.