



Global Futures of Climate (Online Course) - Syllabus

ABOUT THE COURSE

The global futures that we face are viewed by many as threatening the existence of humanity and all life on earth. At an everyday level, climate crisis alone threatens the urban, and mostly coastal, lifestyles that millions around the world have created.

Firstly, this course focuses on our environmental systems and will teach you about such intractable emerging issues as climate crisis, sea level rise, food and water security, and resource depletion.

Secondly, the course will empower you to search for and understand the enormous potential of innovative thinking to create alternative solutions, such as urban and Ocean farming, renewable energy, and floating cities.

Thirdly, the course will explain how each innovative solution can be aligned to the UN Sustainable Development Goals (SDGs).

This is a self-paced, web-based course. The recommendation is to work through one to two Lessons per week, but you may do more or less as your schedule allows. It is preferable to work through the lessons in order, in a fairly linear way, as ideas and concepts are built upon throughout the course. However, you will find that there is overlap and interconnectedness among topics.

The Purpose of the Course

1. To demonstrate that the environmental challenges we face if we continue with business-as-usual, are a threat to human survival;
2. To show there are numerous alternatives available to us if we choose to turn things around; and
3. To empower you to make positive climate changes within your sphere of influence.

Course Learning Objectives

By the end of the course students will be able to:

- Identify three major environmental systems challenges and give examples of at least two specific challenges for each.
- Reflect on how at least one of these environmental challenges is having a direct impact in their life and that of their community.
- Research alternative scenarios for this direct challenge, if possible demonstrating how each alternative aligns to one of more of the UN SDGs.
- Design a plan of action to implement some tangible change in their life or community in relation to one of the environmental challenges.



HOW THE COURSE WILL GROW YOUR EXPERTISE

The Course Content incorporates over 100 learning resources, including:

- 12 Lessons over 3 Modules: Climate Change, Energy Systems, Ecosystem.
- Four lessons per Module, two on the challenges, two addressing the solutions.
- 12 Instructor videos (one per Lesson) to guide you through the Course Content and Resources.
- Over 40 expert videos (climate and ocean scientists, EC, UN, OECD, European Parliament, Carbon Brief, WWF, World Bank, Universities)
- Over 50 expert articles/reports (NASA, UN, IPCC, UNFCCC, UNSDGs, State of the Planet, Blue Carbon Initiative, Greenpeace, Universities, UNDP, Global Commission for Adaptation, to name a few).
- 36 reflection questions to journal your progress.
- 60 fun quiz Qs to test knowledge gained.
- Certificate of Completion.

What you can Expect from the Course?

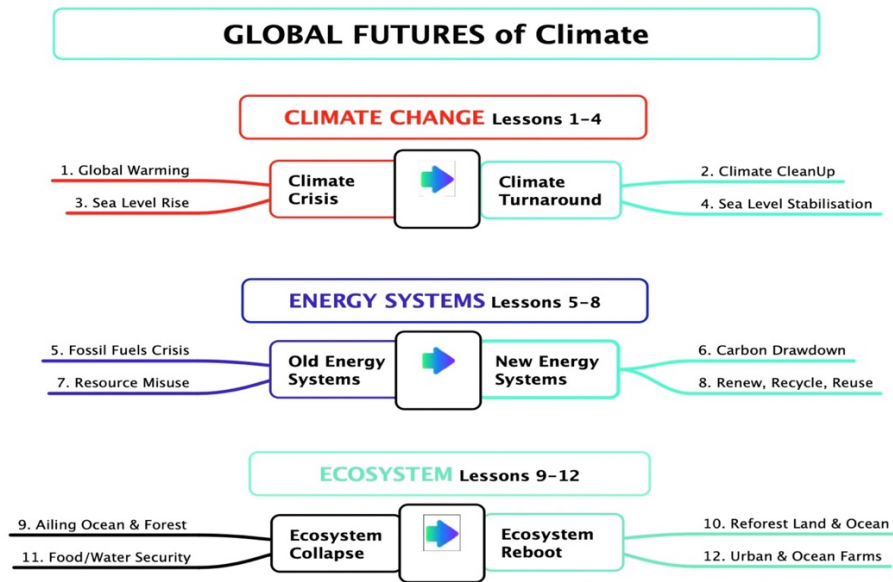
- Each lesson includes rich content and resources that will provide you with the most reliable information about the major environmental challenges of our times.
- You will begin to appreciate the enormous potential of imagination to create alternative solutions to these crises.
- Because this course is integral and all the themes are interconnected, you will gain a greater understanding of how everything we do impacts everything else.
- The material will deepen your understanding of all these issues as you work through the content and do your own research based on the materials offered.
- The course will transform your worldview by opening up possibilities you may never have imagined.
- MOST IMPORTANTLY... the course will empower you to create long-term change in the world.

Why you should take the Course:

- Learn from Jennifer's valuable expertise from the highest levels of global thinking into the complexity and wide impacts of Climate Crisis.
- Join an international cohort of futures-ready citizens informed about the real challenges of climate change and how to find solutions.
- Acquire knowledge to make informed decisions about climate futures that will affect your enterprise, family and community.
- Boost your career opportunities at a time when most corporations are beginning to realise they need to be climate literate.
- Build your enterprise by drawing on insights from Jennifer's 30 years' experience as an international futures consultant.

OVERVIEW OF COURSE CONTENT

The course includes 12 lessons across three Modules: Climate Change, Energy Systems and Ecosystem. In each of the three Modules there are two lessons addressing the challenges, and two lessons addressing the alternatives, as you will see from the diagram.



Module 1 - Climate Change:

Lesson 1. Climate Crisis: Global Warming Challenges

- About Climate Crisis
- Warming on Land
- Heating of the Ocean

Lesson 2. Climate Turnaround: Climate Clean Up Alternatives

- What are the UN SDGs?
- Mitigation – Carbon Emissions Reduction – Global Scale
- What some groups are doing re Paris Agreement

Lesson 3. Climate Crisis: Sea Level Rise Challenges

- Melting Arctic and Antarctic
- Sea Level Rise
- Coastal and Island Inundation

Lessons 4. Climate Turnaround: Sea Level Stabilisation Alternatives

- Mitigating Sea Level Rise
- Replanting the Ocean
- Floating Houses and Cities (Adaptation)



Module 2 - Energy Systems:

Lessons 5. Old Energy: Fossil Fuel Crisis Challenges

- Energy Systems 101
- Dangers of Fossil Fuels – Oil, Coal and CO2
- GreenHouse Gas (GHG) emissions

Lesson 6. New Energy: Carbon Drawdown Alternatives

- Calculating and reducing your Carbon Footprint
- Methods for Carbon Capture on Land
- Blue Carbon Capture (in the Ocean)

Lesson 7. Old Energy: Resource Misuse & Energy Shortages

- Planned Obsolescence and Growth in Waste
- Plastic Pollution another side of Oil
- Waste Disposal, especially Plastic

Lesson 8. New Energy: Renew, Reduce, Recycle, Reuse

- Types of Renewable Energy
- The Waste Hierarchy
- Rise of Vintage and Op Shops

In Module 3 – Ecosystem:

Lessons 9. Ecosystem Collapse: Ailing Ocean & Forests

- What are Ecosystems?
- One Ocean Ecosystem – Several Subsystems
- Forests as Lungs of Planet – “forests are largest storehouse of carbon after Ocean”

Lesson 10. Ecosystem Reboot: Reforest Land & Ocean

- Regenerative Agriculture
- Reforestation – The Great Green Wall of Africa
- Why we need Marine Protected Areas 30/30

Lesson 11. Ecosystem Collapse: Food & Water Security

- Loss of Agricultural Land to warming, drought and flood
- Sea Level Rise - Water contamination
- The water wars - Cochabamba in Bolivia

Lesson 12. Ecosystem Reboot: Urban & Ocean Farming

- Urban Farming - The example of Havana
- Ocean Farming – The example of Greenwave
- Aquaculture regeneration in Hawai'i



STRUCTURE OF COURSE

There is a total of **12 LESSONS in the Full Course**. Each includes the following:

- Lesson Description
 - Includes introduction, and topics covered.
- Videos
 - Includes instructor video leading you through the lesson content and resources, and 3-4 content related videos.
- Reading Materials
 - Includes 4-5 articles to explore the main issues related to the topic areas covered in the lesson.
- Reflection Questions
 - To prompt your thinking and learning for your personal Journal.
- Test Your Learning
 - Short, practical multiple-choice quizzes to test your knowledge of the concepts of the lesson.

RESOURCES

- There is no textbook required for the course. All materials are contained within the course modules and the external links document.
- For students seeking to advance their knowledge of futures concepts, there is a companion volume “The Future: A Very Short Introduction” written by the course creator. <https://global.oup.com/academic/product/the-future-a-very-short-introduction-9780198735281>
- You will need a blank journal to enhance your engagement with the course. This can be a hard-copy paper journal or digital journal.

GRADING

There are no graded assignments for the course. The quizzes are automatically graded and may be repeated multiple times for practice.

TIME COMMITMENT

Time to complete each lesson will vary depending upon your interest in the content for that lesson, the time that you spend on each section (reading, watching videos, exploring links) and the time that you spend reflecting and journaling for your own understanding and meaning making. To get the most out of the course, you should plan to spend at least 3-4 hours on each Lesson.

PREREQUISITE

There is no official prerequisite for this course.

CERTIFICATE OF COMPLETION

You will be provided with a Certificate of Completion when you have successfully completed the Course. You will also be provided with a Certificate of Completion for each individual Module if you choose to do them separately.