UNICORN learning program: **Syllabus**

A free learning program aimed at developing **climate realism**, **energy systems literacy**, and **narrative awareness**. Available at www.cenUNICORN.com.

A comprehensive set of stand-alone modules that are coherent together in a distinct framework…UNICORN

Uncertainty – the science of climate change in the earth's *past* and *present* vs. the modeling of climate crisis in a virtual *future*

Nuclear Power – an ultra-energy-dense future for human flourishing

Intermittent Wind & Solar – weather-dependent so systemically unreliable

China and the non-Western world – it's not just about us any more

O is for Adapt – which just goes to show how adaptable we humans can be

Reassure – the climate anxious need our help

Narrative of climate crisis – its *construction* in academia, *preaching* by the media, and *realization* through energy policy

You can start at U1and work your way through to Na9 or choose those modules of most interest; average module length is 13 minutes.

The modules are arranged in sets – usually a set of three. Each set has an introductory slide at the beginning and a summary slide at the end.

For each module, please find below the title, length, topics, and takeaway.

Uncertain Climate Past – science

U1	**Paleoclimate Record**	*Topics*: INTRO; proxies; ppm; inexact science; over 550 million years – CO2 levels trend down, climate temperature cycles up and down; current ice age – historically low CO2 and temperature.
5 slides; 9 mins		*Takeaway*: **Evidence from paleoclimate science shows that over hundreds of millions of years, the earth's climate temperature varies independently of atmospheric CO2…and CO2 today is a fraction of past levels.**
U2	**Ice Core Analysis**	*Topics*: ice age; Greenland cores – sudden temperature changes (D-O events); recent 1.1°C increase; Antarctica cores – glacials and interglacials (Milankovitch); chemistry of oceans
4 slides; 9 mins		*Takeaway*: **Evidence from ice cores shows that over hundreds of thousands of years, climate temperature drives the amount of CO2 in the atmosphere...not the other way around.**
U3	**Holocene Observations**	*Topics*: Montanna's glaciers; warmth for human development; Holocene Climatic Optimum and rapid rises in temperature; ice and tree line movements; SUMMARY.
5 slides; 12 mins		*Takeaway*: **Observations from our 10,000-year-old Holocene interglacial show evidence of the usual ups and downs in climate temperature, with no influence from CO2…and it was warmer than today when we started farming.**

Uncertain Climate Present – science

U4	**Unfortunate Coincidence**	*Topics*: INTRO; Medieval Warm Period, Little Ice Age, Modern Warm Period; Alaska's Glacier Bay and Central England; 1910-1940 warming, global cooling scare, satellite era warming.
6 slides; 13 mins		*Takeaway*: **Global warming in the Modern Warm Period coincides with Industrialization...even so, a theory of CO2 as the control knob for climate temperature is still not plausible.**
U5	**The Physics of CO2**	*Topics*: the sun; greenhouse gases and heat trapping; logarithmic effect, infrared saturation; 40 billion tons of CO2 pa; extra 1°C of warming with doubling of CO2 – guess mid C22.
4 slides; 11 mins		*Takeaway*: **The greenhouse gas effect of CO2 is real, but relatively small, and reducing due to infrared saturation…our emissions cannot cause runaway global warming – physics.**
U6	**Urbanization**	*Topics*: urban heat island (UHI) effect; US voters influenced by local urban warming; concrete control knob for local climate temperature; energy-rich Singapore as UHI; SUMMARY.
5 slides; 10 mins		***Takeaway*: Heat-absorbing concrete jungles (urban areas) have warmed more than greener rural areas…reflected in the way people vote in the US but not in Singapore.**

Uncertain Climate Future – modelling

U7	**FOGy Climate Models**	*Topics*: INTRO; list of climate influences and disciplines; cancel out natural variation – CO2 control knob algorithm; not reality 1/3; IPCC warning; FOG spelled out
5 slides; 13 mins		*Takeaway*: **Climate realists can see through the FOG, separating scientific Facts from subjective Opinion, and algorithmic Guesswork…and they know that predictions about a non-linear chaotic system are never data.**
U8	**Implausible + Probabilistic**	*Topics*: simplified virtual climate models – two levers: 1) CO2 scenarios, RCP8.5 - Business as Usual; 2) feedbacks, clouds the big one, different effects – not well understood
5 slides; 10 mins		*Takeaway*: **Computer simulations with implausible CO2 scenarios and probabilistic clouds produce exaggerated virtual climate temperature predictions…in reality, trends in real cloud cover are uncertain.**
U9	**Virtual vs. Real Climate**	*Topics*: climate models cannot hindcast reality but can be tuned to it; CMIP-5 models running hot - Christy testimony; CMIP-6 not improved; seven reasons to disbelieve; SUMMARY
6 slides; 14 mins		*Takeaway*: **Tests of climate models confirm the IPCC's definition of the earth's climate: a "non-linear chaotic system, and therefore that the long-term prediction of future climate states is not possible."**

Nuclear Power

N1	**Energy Density**	*Topics*: INTRO; wood & dung, fossil fuels, hydro & geothermal; uranium 16,000x coal; France grid decarbonization; potential for electricity expansion; land, materials, CO2 impact.
5 slides; 8 mins		*Takeaway*: **Given that ultra-energy-dense nuclear power means an ultra-low environmental impact, it's odd that we in the West do not have an accelerated nuclear program.**
N2	**Anti-Nuclear Success**	*Topics*: better problems; safety - radiation, explosion, meltdown; waste - football field's worth, dry cask process, reprocessing value, 600-year decay; Calder Hall, $30m; Governor Brown.
5 slides; 13 mins		*Takeaway*: **Nuclear safety is second to none, and the radioactive waste is manageable…it is weaponized regulation that blocks nuclear power.**
N3	**Green Belief**	*Topics*: humans adapt their environment at scale; The Population Bomb - Green prophets; Green aim is a return to energy poverty; Kuznets curve - conservationism; tipping points; SUMMARY.
5 slides; 14 mins		*Takeaway*: **In the moral judgment of the Green, humans are a species unfit for nuclear power…they lead us back towards the energy poverty of nature from whence we came.**

Intermittent Wind & Solar

I1	**Wind & Solar Economics**	*Topics*: INTRO; hidden costs – transmission, mandates; duplication with reliable (fossil-fueled) backup or grid-scale storage (LDES) – overbuild and batteries.
7 slides; 16 mins		*Takeaway*: **Unreliable Wind & Solar carry the duplication costs of fossil-fueled backup…or the even more expensive option of overbuild capacity and not-yet-invented grid-scale batteries.**
I2	**Wind & Solar Environment**	*Topics*: wind land use calculations; solar and battery – exponential growth in materials mining and processing; supply and waste consideration; wind and solar subsidy farms.
4 slides; 8 mins		*Takeaway*: **An impossible amount of land for wind; fantasy-level quantities of raw materials for solar...the environmental impact of Wind & Solar is worse than any other energy system.**
I3	**Benefits of CO2**	*Topics*: global greening – crop yields; photosynthesis and glucose; human flourishing hockey sticks; CO2 emissions vs. GDP; combine harvesters and other ff products; child mortality; SUMMARY.
6 slides; 14 mins		*Takeaway*: **Abundant, cheap, and reliable energy brings human flourishing – more knowledge, wealth, and health…plus, with fossil-fueled energy, a greening planet too.**

China and the non-Western world

C1	**China and India**	*Topics*: INTRO; China's postdated promise; China nuclear is growing but mostly coal; India not as developed, even more coal-dependent; non-Western CO2 emissions dominant.
5 slides; 9 mins		*Takeaway*: **Economic growth and development are much higher priorities for China and India than decarbonization…the geopolitical reality is that humanity's CO2 emissions are set to continue.**
C2	**Eco-colonialism**	*Topics*: Eco-colonialists in Africa, stopping energy/GDP development; agencies shifting focus from poverty; African and Westerner objection; not about us; guess 850ppm peak; SUMMARY.
5 slides; 10 mins		*Takeaway*: **Western eco-colonialism in the developing world is being resisted…realistically, today's World Bank and IMF do not enjoy the power differentials of past imperialists.**

O is for Adapt – showing just how adaptable we humans can be

O1	**Human Adaption**	*Topics*: INTRO; Chicago 1850s; Holland airport; southern Vietnam; 95/99% drop in climate-related deaths; urban adaption; Lagos canals; Shellenberger – what determines climate deaths.
5 slides; 11 mins		*Takeaway*: **We humans have an incredible track record of adapting to whatever the earth's climate throws at us…we are especially adaptable with fossil-fueled energy and machines.**
O2	**Future Adaption**	*Topics*: glacial to interglacial sea level rise vs. todays; Arctic ice concerns; West Antarctic Ice shelf – Thwaites Glacier; accretion in Maldives, subsidence in Miami; tropic to pole temperature gradient.
5 slides; 11 mins		*Takeaway*: **Climate temperature and sea level changes are not global, so resources should be focused on local adaption for those affected the most.**
O3	**Globalist Ambition**	*Topics*: MDG global problem-solving success to SDG absurdity; WEF; hubris; Globalist quotes; Lomborg – climate calculations, GDP growth delayed; SUMMARY
5 slides; 12 mins		*Takeaway*: **When the hubris of climate control meets Globalist ambition, the common sense of local adaption to local climate impact is lost…and trillions are wasted.**

Reassuring the climate anxious

R1	**Reassuring Climate**	*Topics*: INTRO - climate anxiety; risky shading - cooling; unprecedented tipping points – 1.5 and 2°C; 1.1°C already; comparison to previous warm periods; Eemian European hippos.
5 slides; 12 mins		*Takeaway*: **Whatever our climate destiny in the Modern Warm Period, it is reassuring to know that earth and its humans have survived much warmer times.**
R2	**Reassuring Facts**	*Topics*: overpopulation doom; carbon-based lifeform; cooling kills civilizations; Indian wheat - Ten Global Trends; Lancet warming saves lives; Clintel; sources for temp, CO2; land use; SUMMARY
6 slides; 13 mins		*Takeaway*: **Facts are the perfect counter to subjective Opinion and algorithmic Guesswork…it's reassuring when you can see through the climate FOG.**

Narrative Construction

Na1	**Consensus or Groupthink**	*Topics*: INTRO; consensus politics vs science groupthink; Obama's "97%" Tweet – 3 claims; the IPCC; enforcement through peer review, cancel culture, and funding; Koonin and Curry books
6 slides; 17 mins		*Takeaway*: **The IPCC's climate groupthink ignores scientific uncertainty … moral certainty in CO2 as the control knob for temperature is at the core of the climate crisis narrative.**
Na2	**Adjusting Reality**	*Topics*: adjustments 1) erase Medieval Warm Period; 2) tampering with US data; 3) fake, FOGy global data – warning; 4) disputed hottest day record; not reality 2/3.
6 slides; 15 mins		*Takeaway*: **False claims about warm periods; tampered with and FOGy data sets; disputed temperature records…CO2 control knob theory requires that the data reality of the earth's climate be adjusted.**
Na3	**Virtual Sixth Extinction**	*Topics*: polar bears, coral reefs, bees; prior extinctions, red list, and land use; IBPES – 6.2 million virtual species; Cambrian explosion; SUMMARY.
5 slides; 10 mins		*Takeaway*: **With over 6 million virtual species invented, computer simulations can predict (and in due course, no doubt, report) as many virtual extinctions as the narrative requires.**

Narrative Preaching

Na4	**Media Preachers**	*Topic*: INTRO; advocacy journalism; headlines, terms, and image propaganda; censorship by social media and ChatGPT; heat reporting 9x cold.
6 slides; 12 mins		*Takeaway*: **Objective reporting is so last century…today, the scientific uncertainty of climate change is replaced by moral certainty in climate crisis, a narrative preached by both the mainstream and social media.**
Na5	**Tricks of the Narrative**	*Topics*: #1 trick – predictions as evidence; words; data trends; climate vs. weather; future choice; ice sheet melt; Arctic Sea ice; disasters and GDP; y-axis and x-axis – time period; start-date selection
11 slides; 20 mins		*Takeaway*: **Simulations & predictions presented as objective evidence, but that's only the start…the narrative's preachers have any number of tricks and are not shy in using them.**
Na6	**Extreme Weather**	*Topics*: daily/lifetime occurrences; two theories of weather direction; extreme weather trends – flat; modeled event attribution – not reality 3/3; unprecedented video; SUMMARY.
7 slides; 16 mins		*Takeaway*: **Weather is *attributed* to climate in virtual models – Guesswork…then video is used to influence our Opinion…but extreme weather in the earth's real climate has not increased – Fact.**

Narrative Realization

Na7	**Energy Reality**	Topics: INTRO; Korean peninsula, 3bn people = US fridge; global energy mix, renewable cognitive dissonance; trillions on Wind & Solar – 3% of mix; pretend transition; fertilizer etc.; Epstein book
7 slides; 15 mins		*Takeaway*: **Our energy reality is that for many decades (maybe centuries) to come…"Global human flourishing requires more oil, coal, and natural gas – not less."**
Na8	**Net-Zero Delusion**	*Topics*: amateur activism; professionals' strategy – block, pretend, assume, ignore, degrade; challenge – ff infrastructure; politicians, bureaucrats (EPA finding), lawyers, corporations; examples + feasibility
6 slides; 15 mins		*Takeaway* : **There are no feasibility projects to demonstrate Net Zero with Wind & Solar because running an advanced industrial society on breezes and sunshine is not feasible…it's delusional.**
Na9	**Stakeholder Analysis**	*Topics*: 6 stakeholder groups (NGO budget) and 3 interested parties (teachers); spectrum of dissent; Righteousness; SUMMARIES – climate realism, energy system literacy, narrative awareness.
9 slides; 21 mins		*Takeaway*: **The climate crisis narrative and the net-zero delusion it spawns serve the interests and beliefs of powerful stakeholders…but you and I don't have to believe in climate models.**