ENGAGING ONLINE:
TEACHING AND LEARNING WITH THE SDG ACADEMY

With colleges and universities shifting to online learning, there is an increasing need for online resources that can be easily integrated into their existing curricula. The SDG Academy looks to ease the transition to online learning for educators teaching in a variety of disciplines and geographical contexts by offering free, high-quality content. Our resources include 30 massive open online courses (MOOCs) on topics related to the interdisciplinary field of sustainable development, and nearly 1,200 lecture and case study videos from world experts available in our searchable SDG Academy Library. Our resources are pitched at an introductory Master’s level, but are suitable for students, policymakers, life-long learners, and anyone with an interest in sustainable development.
CONTENT AND RESOURCES

Delivered as massive open online courses (MOOCs), live webinars, and curated resources, our content is available for a diverse global audience on edX.org, one of the world’s largest online learning platforms. Enrollees include students, academics, working professionals, policymakers, civil society organizations, and interested members of the public. Nearly all of the MOOCs available on edX right now can be taken self-paced, meaning that you can access and complete the content at any point. For educators looking to use MOOCs in their teaching, this means that you can encourage students to follow the course in the free Audit Track. You can also download course videos and readings (and their associated comprehension questions) to integrate into your own teaching, get ideas for web-based interactive activities, or use our discussion prompts as a jumping-off point for your own online class discussions. The possibilities for learning are endless!

Need to find video resources quickly? In September 2019, the SDG Academy launched the SDG Academy Library, which makes our course videos available as stand-alone resources in a searchable content repository. Search nearly 1,200 video lectures and case studies by MOOC, lecturer, SDG, academic subject, or keyword.

Topics and themes of SDG Academy content include: sustainable development, macroeconomics, climate science, human rights, early childhood development, global public health, technology, ethics, policy, governance, and more.
OUR COURSE FACULTY

The SDG Academy’s global faculty comprises leading experts in sustainable development who believe in the power of sharing knowledge for the good of people and planet. Our faculty hail from renowned universities and international institutions such as Columbia University, Harvard University, the Indian Institute for Human Settlements, Stellenbosch University, the World Bank, UNICEF, UNESCO, the Stockholm Resilience Centre, and many more. Most of our courses are multi-faculty, drawing from a mix of academicians and practitioners representing different geographies, perspectives, and traditions. This allows for our courses to offer a depth of content that is impossible in a single-faculty or single-institution course. Courses assume no prior knowledge of the issues discussed, but expect that by the time a course is completed, learners will have gained extensive knowledge and an understanding of some of the most complex and pressing global challenges of our times.

OUR MISSION STATEMENT
The SDG Academy aims to be the premier source of high-quality educational content on the SDGs, with a mission to enrich the field of sustainable development and advance the UN’s Agenda 2030.

OUR VISION
To create and curate relevant and diverse content on the SDGs, made available to a global audience, and to establish partnerships that train and prepare both educators and practitioners, in this generation and the next, to take up the challenges of achieving sustainable development.
Our Courses
COURSES
Detailed outlines for each course can be found below

- Age of Sustainable Development
- The Best Start in Life: Early Childhood Development for Sustainable Development
- Cities and the Challenge of Sustainable Development
- Climate Action: Solutions for a Changing Planet
- Climate Change Science and Negotiations
- Climate Change: The Science and Global Impact
- Conversations with Global Leaders: Leading on Sustainable Development
- Environmental Security and Sustaining Peace
- Ethics in Action
- Feeding a Hungry Planet: Agriculture, Nutrition and Sustainability
- From the Ground Up: Managing and Preserving Our Terrestrial Ecosystems
- Global Public Health
- Globalization: Past and Future
- How to Achieve the Sustainable Development Goals
- Human Rights, Human Wrongs: Challenging Poverty, Vulnerability and Social Exclusion
- Industrial Policy in the 21st Century: The Challenge for Africa
- Laudato Si’: On Care for Our Common Home
- Macroeconomics for a Sustainable Planet
- Natural Resources for Sustainable Development
- One Planet, One Ocean
- Planetary Boundaries
- Sustainable Cities
- Sustainable Development: The Post-Capitalist Order
- Sustainable Food Systems: A Mediterranean Perspective
- Tech for Good: The Role of ICT in Achieving the SDGs
- Transforming Our World: Achieving the Sustainable Development Goals
- Water: Addressing the Global Crisis

SDG academy
An Initiative of the Sustainable Development Solutions Network
AGE OF SUSTAINABLE DEVELOPMENT

Learn the basics of sustainable development—what it is, why it’s important, and how we can achieve it.

COURSE OUTLINE (PAGE 1/2)

Module 1: What is Sustainable Development?
Intro to Sustainable Development
Economic Growth & Progress
Continuing Poverty
Environmental Threats
Business-As-Usual vs. Sustainable Development
From the MDGs to the SDGs: Agenda 2030

Module 2: Economic Development
Incomes Around the World
Urban/Rural Inequality
Income Inequality Within Countries
Measuring Wellbeing
Convergence or Divergence

Module 3: History of Economic Development
Economic Development from 1750
Industrial Revolution
Waves of Tech Change
Diffusion of Economic Growth
Economic Development Since WWII

Module 4: Inequality Between Countries
Clinical Economics
The Role of Physical Geography: Transport, Energy, Disease, Crops
The Role of Culture: Demography, Education, Gender
The Role of Politics
Countries Stuck in Poverty

Module 5: MDGs: End of Extreme Poverty
Extreme Poverty Can End
Ending Extreme Poverty in Africa
Food Supply in South Asia
Official Development Assistance
Designing Practical Interventions: Millennium Villages Projects

Module 6: Growth Within Planetary Boundaries
The Origins of the Boundary Concept: Thomas Malthus
Neo-Malthusian Frameworks: Growth Dynamics
The 9 Planetary Boundaries
Living Within Limits: Energy, Agriculture, and Industry

Module 7: Human Rights, Gender Equality
Ethics: Wealth, Poverty, Inequality
UN Declarations
Divided Societies
Forces of Widening Inequalities
Gender Inequality & Solutions
AGE OF SUSTAINABLE DEVELOPMENT

Learn the basics of sustainable development—what it is, why it's important, and how we can achieve it.

COURSE OUTLINE (PAGE 2/2)

Module 8: Education
Human Development: Life-Cycle Approach
Early Childhood Development
Education & the Supply Response
Social Mobility
The Role of Higher Education

Module 9: Universal Health Coverage
Human Right to Health
Poverty & Disease
Designing a Health System in Low-Income Countries
Healthcare for All
Health Coverage in High-Income Countries

Module 10: Sustainable Food Supply: The End of Hunger
Malnutrition
Farm Systems, Ecology, Food Security
How Environmental Change Threatens the Food System
How the Food System Threatens the Environment
A Sustainable Global Food Supply

Module 11: Sustainable Cities
Patterns of Urbanization
What Makes a City Sustainable?
Smart Infrastructure
Urban Resilience
Planning for SD

Module 12: Curbing Climate Change
Science of Impact
Consequences
Mitigation
Adaptation
Mitigation Policies

Module 13: Saving Biodiversity
What is Biodiversity
Biodiversity Under Threat
Oceans and Fisheries
Deforestation
International Dynamics

Module 14: The Sustainable Development Goals
The Proposal for Sustainable Development Goals
Goal-based Development
Financing for Sustainable Development
Principles of Good Governance
Is Sustainable Development Feasible
THE BEST START IN LIFE: EARLY CHILDHOOD DEVELOPMENT FOR SUSTAINABLE DEVELOPMENT

Children are our future—so how do we give them the best beginning for a happy and healthy life?

COURSE OUTLINE

Module 1: Introduction
Early Childhood Development for Sustainable Development
The State of the World’s Children
How Brain Architecture Develops
The Impact of Adversity & Toxic Stress
Resilience & How to Foster It

Module 2: Child Development: Prenatal to Age 3
Development in Culture & Context
Physical Development
Cognitive Development & Perception
Language Development
Social Development
Emotional Development & Temperament

Module 3: Child Development: Ages 3 to 8
Physical Development
Cognitive Development & Executive Function
Language
Socio-emotional Development

Module 4: Tour of ECD Programs and Sectors, Part I
Introduction to Multi-sector Aspects
Health Programs
Nutrition & Parenting Programs

Module 5: Tour of ECD Programs and Sectors, Part 2
Social Protection Programs
Early Care & Education Programs
Child Protection Programs

Module 6: Communities and Situations of Conflict and Migration
Uganda Case Study
Community-Based Programs
Conflict & Migration

Module 7: From Programs to Policies
How is Policy Created?
Quality, Governance, & Sustainability
Financing ECD Policies

Module 8: The Future: Innovations and Growth
Innovation in ECD
Innovation from Around the World
Conclusion: The Future of ECD
CITIES AND THE CHALLENGE OF SUSTAINABLE DEVELOPMENT

What is a sustainable city? Learn the basics here.

COURSE OUTLINE

Module 1: Introduction to the SDGs
Professor Jeffrey Sachs introduces the SDGs and their importance. This module briefly describes the importance of creating sustainable living spaces and what we can expect from a future that is built on the principles of economic prosperity, social inclusion, and environmental sustainability.

Module 2: Why Cities? The Importance of SDG 11
Professor Sachs talks about the ideas and thought-processes that are used to work towards achieving sustainable cities. He elaborates the circumstances in which SDG 11 was created, and uses data to estimate future global needs and the expectations that must be fulfilled to establish sustainable cities. The outcomes of modifying and designing cities for the increasing world population are also elaborated.

Module 3: The 10-Point Agenda for 21st-Century Cities
Professor Sachs discusses the pros and cons of advancements in science and technology. He outlines a 10-point agenda for sustainable cities, and discusses each topic individually to elaborate the breadth and depth of this complex issue.

Module 4: Urban Environment and Energy Systems
Professor Sachs highlights the issues escalating due to climate change and pollution, and establishes the urgent need to achieve clean and smart cities. To illustrate the limited timeline under which sustainability must be achieved, he uses current data to forecast possible future solutions. This module also includes examples of new methods and cutting-edge technologies that can be used to achieve SDG 11.

Module 5: Cities as Hubs of Knowledge
This concluding video draws on the cross-cutting issues previously discussed, including the importance of developing urban settlements into smart, shared spaces that foster creativity and knowledge growth. Using case studies, Professor Sachs provides further examples of how this is being done across the world and how this method can be applied in the future.
CLIMATE ACTION:
SOLUTIONS FOR A CHANGING PLANET

How do we turn commitments to reducing the effects of climate change into action?

COURSE OUTLINE (PAGE 1/2)

Module 1: Implementing the Paris Climate Agreement
The Goal: < 2°C (Part 1)
The Goal: < 2°C (Part 2)
The Carbon Budget (Part 1)
The Carbon Budget (Part 2)
Deep Decarbonization: Reaching Net-Zero by the Second Half of the Century (Part 2)
Sources and Sinks: Energy, Land Use, CCS (Part 1)
Sources and Sinks: Energy, Land Use, CCS (Part 2)
Uncertainties, Precaution, and Insurance (Part 1)
Uncertainties, Precaution, and Insurance (Part 2)

Module 2: Deep Decarbonization: The Three Pillars and National Case Studies
Deep Decarbonization Pathway Planning and Mid-Century Strategies
The Three Pillars of Decarbonization
Case Study: US Deep Decarbonization (Part 1)
Case Study: US Deep Decarbonization (Part 2)
Case Study: Russia Deep Decarbonization
Case Study: Canada Deep Decarbonization
Case Study: Australia Deep Decarbonization
Challenges in the Decarbonization Transition

Module 3: Low Emissions Electricity & Renewables
The Role of Innovation to Reduce Emissions
Innovative Off-Grid Energy Solutions
Renewables: Solar
Renewables: Wind
Nuclear Power
Transmission, Energy Storage and Grid Integration
Life Cycle Analysis
CLIMATE ACTION: SOLUTIONS FOR A CHANGING PLANET

How do we turn commitments to reducing the effects of climate change into action?

COURSE OUTLINE (PAGE 2/2)

Module 4: Agriculture and Emissions
Earth Observations for Climate Mitigation
The Need to Reduce Uncertainties in Global Land-Use Information
Global Crop Models and Their Potential to Assess Mitigation Options in Agriculture

Module 5: Monitoring Land Use
Mitigation on Land and the SDGs (Part 1)
Mitigation on Land and the SDGs (Part 2)
GHG Mitigation in Agriculture (Part 1)
GHG Mitigation in Agriculture (Part 2)
Using System Analysis for Globally Consistent National Mitigation Planning (Part 1)
Using System Analysis for Globally Consistent National Mitigation Planning (Part 2)
Case Study: Brazil’s Intended Nationally Determined Contribution Supply Chain Solutions to Deforestation: Evidence from Brazil

Module 6: Policy Tools for the Transition to Low-Emissions
Principles of Public Policy
Putting a Price on Carbon (Part 1)
Putting a Price on Carbon (Part 2)
Intellectual Property, Access, and Innovation
Climate Fairness & Justice (Part 1)
Climate Fairness & Justice (Part 2)

Module 7: Low-Emission Solutions and the Business Community
Business Solutions for Climate Change
Technology Partnerships to Tackle Climate Change
Business Action in Practice: Renewables
Sustainable Transport Systems
The Role of Public-Private Partnerships (PPP)
CLIMATE CHANGE: 
THE SCIENCE AND GLOBAL IMPACT

We need to understand the science behind global warming to avoid the most damaging and irreversible climate change impacts on people and planet.

COURSE OUTLINE (PAGE 1/2)

Module 1: Introduction to Climate and Climate Change
Course Introduction
What is Climate Change?
Why Should We Care about Climate Change?
Overview of the Climate System: How is the Climate System Constructed?
Overview of the Climate System: How Do Energy Balances Work?
Overview of the Climate System: Global Circulation Systems
Other Fundamental Principles: Feedback Mechanisms & the Carbon Cycle

Module 2: Observing and Measuring Anthropogenic Climate Change
Changes in Atmospheric Greenhouse Gases
Modern Surface Temperature Trends
The Oceans
Extreme Weather
Sea Ice, Glaciers, & Global Sea Level
Paleoclimate Evidence of Climate Change

Module 3: Modeling the Climate System: The Basics
Introduction to Climate Modeling
Expressing a Zero-Dimensional Energy Model as a Linear Equation
0d-EBM Demonstration
Estimating Climate Sensitivity

Module 4: Modeling the Climate System: Advanced
One-Dimensional Energy Balance Models
Case Study: Using a One-Dimensional EBM to Model the Ice Age
General Circulation Models
Validating Climate Models
Detecting Climate Change
Interpreting Climate Sensitivity
CLIMATE CHANGE:
THE SCIENCE AND GLOBAL IMPACT

We need to understand the science behind global warming to avoid the most damaging and irreversible climate change impacts on people and planet.

COURSE OUTLINE (PAGE 2/2)

Module 5: Carbon Emission Scenarios
Emissions Scenarios
Stabilizing CO2 Concentrations

Module 6: Applying Climate Models: Projected Changes in the Climate
Surface Temperature Projections
Projected Changes in Global Precipitation & Drought
Atmospheric & Oceanic Circulation Changes
The Melting Cryosphere
Sea Level Rise Projections
Tropical Cyclone & Hurricane Projection
Extreme Weather Projections

Module 7: Climate Change Impacts: The Future for People and Planet
Carbon Cycle Feedbacks
Sea Level rise & Coastal Impacts
Ecosystems & Biodiversity
Shifting Water & Food Resources
Human Health Impacts
Security Concerns
Tipping Points

Module 8: What Is Our Path Forward?
Geoengineering: A Scientist’s Perspective, Part 1
Geoengineering: A Scientist’s Perspective, Part 2
Emissions Reductions: The Only Viable Way Forward
Conclusion: A Path of Hope
CLIMATE CHANGE SCIENCE AND NEGOTIATIONS

*Humanity is up against a tight timeline to address climate change. Learn how we can deeply decarbonize the global energy systems and put the world on a 2°C pathway.*

**COURSE OUTLINE (PAGE 1/2)**

**Module 1: Towards a New Climate Change Agreement**
- The Challenge of Human-Induced Climate Change
- The History of Climate Change Science
- The UNFCCC
- From Kyoto to Copenhagen
- Towards COP21

**Module 2: The Basics of Climate Change Science**
- The Earth’s Energy Balance
- The Greenhouse Gases and Feedbacks
- The Relentless Rise of CO2
- Other Drivers of Climate Change
- Recent History of Climate Change

**Module 3: The 2-Degree Limit**
- The Business As Usual Trajectory
- The Consequences of the BAU Trajectory
- Limiting the Mean Surface Temperature Increase Below 2-Degrees Celsius vs. Pre-Industrial Levels
- Debates Over the 2-Degree Celsius Limit

**Module 4: The 2-Degree Carbon Budget**
- What is a Carbon Budget?
- What is the Global Carbon Budget for the 2-Degree Limit?
- What is the Global Emissions Reduction Pathway for the 2-Degree Limit?
- How Does It Compare with the Potential Emissions from Fossil Fuel Reserves & Resources?

**Module 5: The Deep Decarbonization of Energy Systems**
- What is an Energy System?
- Energy-Related CO2 Emissions Trends
- The 3 Pillars of the Deep Decarbonization of Energy Systems
- A Global Mitigation Scenario

**Module 6: The Key Technological Challenges of Deep Decarbonization**
- The Need for Accelerated Development of Low-Carbon Technologies
- Key Technology Areas for RDD&D
- Grid Management of Power Systems with High Penetration of Renewable Energies
- Carbon Capture & Sequestration
- Advanced Nuclear Power
- Electric Vehicles and Advanced Biofuels
- The Role of Technology Roadmaps and Roundtables
CLIMATE CHANGE SCIENCE AND NEGOTIATIONS

*Humanity is up against a tight timeline to address climate change. Learn how we can deeply decarbonize the global energy systems and put the world on a 2°C pathway.*

**COURSE OUTLINE (PAGE 2/2)**

**Module 7: Deep Decarbonization Pathways: Country Case Studies**
- Why Countries Need Deep Decarbonization Pathways to 2050
- The Deep Decarbonization Pathways Project
- What We Learn From Countries’ Deep Decarbonization Pathways
- Lessons for the Global Agreement on Climate Change at COP21 in Paris in 2015

**Module 8: Energy & Development**
- Energy & Poverty
- A World Without Modern Energy
- Energy for All in Africa
- How Climate Change Threatens the Poorest of the Poor
- Sustainable Energy for All

**Module 9: Main Challenges of Climate Change Negotiations**
- Efficiency & Fairness
- Basic Principles of a Global Agreement
- What is Fair?
- Making an Agreement Stick
- Problem-Solving Versus Negotiating

**Module 10: Towards a New Climate Agreement Based on 2-Degrees Celsius**
- The Three-Tiered Structure of Mitigation Commitments
- Technology RDD&D
- Climate Financing
- Can Everybody Win? Should Everybody Win?
- Achieving Large Global Goals
CONVERSATIONS WITH GLOBAL LEADERS: LEADING ON SUSTAINABLE DEVELOPMENT

How do global leaders make tough decisions that impact people and planet in a complex world? Hear from the leaders themselves.

**COURSE OUTLINE**

**Overcoming Divisions in Society**
Juan Manuel Santos
Former President of Colombia

**Leading in a Complex World**
Gro Harlem Brundtland
Former Prime Minister of Norway

**The Importance of Goal-Setting**
Ban Ki-moon
8th Secretary-General of the United Nations

**Leadership in the Corporate Sector**
Paul Polman
Co-founder & Chair of IMAGINE
Former Executive Director & CEO of Unilever

**The Climate Sustainable Welfare Society: Is it the Model of the Future?**
Sanna Marin
Prime Minister of the Republic of Finland

*Address given as part of the World Leaders Forum at Columbia University*
ENVIRONMENTAL SECURITY AND SUSTAINING PEACE

How can natural resources and the environment be used as a vehicle for peace?

COURSE OUTLINE (PAGE 1/2)

Module 1: Course Overview
Welcome and Introduction
Evolution of Environment, Peace, and Conflict Linkages
Conceptual Framework for Environmental Peace-building
Case Study: Environmental Peace-building in Colombia
Case Study: Extractives and Peace-building in Aynak, Afghanistan

Module 2: Natural Resources and Conflict Causes
Introduction to Module 2
Drivers of Violent Conflict Emergence
Case Study: Diamonds and Conflict in Sierra Leone
Climate Stress, Conflict, and Peace-building
Case Study: Climate Change Dimensions of the Arab Spring
Governance and Resilience
Transparency and Access to Information
Conflict Sensitivity
Mediating Natural Resource Conflicts
Case Study: Land as a Conflict Driver in Sierra Leone
Wrap-up of Module 2

Module 3: Natural Resources and the Environment during Armed Conflict
Introduction to Module 3
The Importance of Natural Resources during Conflict
Environmental Impacts of Armed Conflict
Breakdown of Environmental Governance and Social Relationships
Conflict Resources and Pillage
Case Study: Blood Chocolate: Cacao and Conflict in Côte d’Ivoire
National Tools for Addressing Conflict Resources
International Law Protecting the Environment during Armed Conflict
Implementing International Law during Armed Conflict
UN Security Council Tools for Addressing Resource Conflicts
Case Study: Diamonds, Timber and Conflict in Liberia
Natural Resources in Peace Agreements
Wrap-up of Module 3
ENVIRONMENTAL SECURITY AND SUSTAINING PEACE

How can natural resources and the environment be used as a vehicle for peace?

COURSE OUTLINE (PAGE 2/2)

Module 4: Post-Conflict Environmental Peace-building
Introduction to Module 4
Environment and Natural Resources in Post-Conflict Assessments
Renewable and Nonrenewable Resources for Recovery
Natural Resources in Security and Stabilization
Restoring Livelihoods and Building Resilience
Resources as Entry Points for Dialogue and Cooperation
Case Study: Cooperation around Shared Water in the Jordan River
Rebuilding Environmental Governance
Empowering Women in Natural Resource Management and Peace-building
Spatial Planning and Recovery
Mitigating Environmental Impacts of Reconstruction
Coordination in Peace-building
Case Study: Environmental Peace-building through Water Management in Wadi El Ku, Sudan
Wrap-up of Module 4

Module 5: Course Wrap-up and Final Assignment
ETHIICS IN ACTION

What do the world’s great religious and secular philosophies have to say about ethical conduct? Which virtues are common across faiths? And what role do religious communities have to play in building a more just and sustainable world?

COURSE OUTLINE (PAGE 1/2)

Module 1: Introduction to Ethics in Action
Sustainable Development and the Need for Ethics in Action
The History of Sustainable Development and the SDGs
The Moral and Practical Limits of Global Capitalism
Moral Teachings and Sustainable Development: An Overview from the World’s Religions

Module 2: Religion and Virtue Ethics - Part I
Lessons from Classical Greece
Lessons from Classical China
A Hindu Perspective
A Buddhist Perspective

Module 3: Religion and Virtue Ethics - Part II
A Jewish Perspective
A Catholic Perspective
A Protestant Evangelical Perspective
An Islamic Perspective
An Indigenous Perspective

Module 4: The Virtuous Society
Virtue Ethics as a Multi-Religious Consensus
Inquiry and Moral Reasoning
Spirituality and the Common Good
Virtue Ethics and Science
Gender Equality: A Confucian Perspective

Module 5: Poverty and Inequality
The Challenge of Global Poverty
The Rights to Health, Education, and Decent Work
Christian Social Teachings on Poverty
Ethical Conduct Towards the Vulnerable
Ethical Actions to End Poverty

LEAD FACULTY

Dr. William Vendley
Secretary General
Religions for Peace
International

Jeffrey D. Sachs
Professor
Columbia University
ETHICS IN ACTION

What do the world’s great religious and secular philosophies have to say about ethical conduct? Which virtues are common across faiths? And what role do religious communities have to play in building a more just and sustainable world?

COURSE OUTLINE (PAGE 2/2)

Module 6: Peace
The State of Conflict around the World
Barriers to Lasting Peace among and within Nations
Tenets of Peace of the World’s Religions
Religion and Peace-building
Actions for a Lasting Peace: Lessons from Syria

Module 7: Refugees, Trafficking, and Modern Slavery
Drivers of Migration, Human Trafficking, and Modern Slavery
The Ethics of Migration and Refugees
The Ethics of Modern Slavery and Trafficking
Political and Social Responses to Forced Migration

Module 8: Environmental Justice
Environmental Perils Facing the Planet
A Hindu Approach to Environmental Care
Laudato Si’ and Climate Justice
The Rights of Indigenous Populations
Defending our Common Home: Global and Local Actions

Module 9: Politics and Power
Politics, Power, and the Common Good
The Moral Underpinnings of Statecraft
Ethics and the International Political Order
Corruption and Politics Today

Module 10: Business, Work, and the Common Good
The Moral Basis for Business Activity
Corruption and Global Business
Technology and the Dignity of Work
Business Leadership for Community Well-being

Course Conclusion: Towards a New Virtue Ethics for Sustainable Development

Examining Ethics in Action: Case Studies
Pope Francis and Multi-Faith Action
Religions for Peace
Community-based Healthcare in Africa
Health and Climate Change
Reflections from the Business Community
Move Humanity
FEEDING A HUNGRY PLANET: AGRICULTURE, NUTRITION AND SUSTAINABILITY

How do we create a healthy and sustainable diet for the growing world population?

COURSE OUTLINE

Module 1: The Global Challenges around Food
Introduction to this MOOC
Global Challenges around Food
Case Study 1: Rice
Case Study 2: Smallholder Farming
Case Study 3: Livestock
Case Study 4: Aquaculture

Module 2: Agriculture at the Center of Sustainable Development
Emergence of Modern Agriculture
Risks under a Business-As-Usual Scenario
Agriculture & the Sustainable Development Goals

Module 3: Food Systems for Nutritional Security and Better Health
What is Food Security?
Nutrition and Health
Consumption and Diets
Food Losses and Waste
Socio-economic Dynamics of Food Systems
Pathways towards Food Security

Module 4: Sustainable Intensification of Agricultural Systems, Part 1
Sustainable Agriculture Intensification
The Importance of Productivity Growth
Climate Change Adaptation and Mitigation
Breeding and Genetics
Nutrient Management
Soil Fertility Management

Module 5: Sustainable Intensification of Agricultural Systems, Part 2
Water Management
Crop Protection
Good Agronomy
Sustainable Livestock Systems
Functional Diversity I
Functional Diversity II

Module 6: Rural Development for Poverty Alleviation
Rural Economies and Urban Linkages
Rural Development
Markets and Supply Chains
International Trade
Development Enhancing Investments
Food Governance

Module 7: Action for Change
Pathways to Change
Monitoring Change
Mechanisms to Stimulate Change
Investing in Science
What Can I Do?
FROM THE GROUND UP: MANAGING AND PRESERVING OUR TERRESTRIAL ECOSYSTEMS

How can we preserve, restore, manage, and sustainably use terrestrial ecosystems? Join us as we explore this question in the Brazilian Amazon and around the world.

COURSE OUTLINE

Module 1: Introduction to Terrestrial Ecosystems
Welcome to the Course
Introduction to SDG 15
Terrestrial and Inland Freshwater Ecosystems
Social and Economic Importance of Terrestrial Ecosystems
Human Dimensions of Ecosystem Protection and Management
The Savanna Grasslands

Module 2: The Challenges Facing Terrestrial Ecosystems
Ecosystem Degradation
Ecosystem Conversion
Biodiversity Loss
Thresholds and Tipping Points
Fragmentation and Landscape Management

Module 3: Terrestrial Ecosystem Valuation
Valuing Ecosystems Services
Payment for Environmental Services
The Cost of Inaction
Forest Certification

Module 4: Management Systems for Terrestrial Ecosystems
Protected Area Management I
Protected Area Management II
Agroforestry Systems
Sustainable Forest Management
Cross-sectoral Issues: The Case of Small-scale Gold Mining

Module 5: Designing Sustainable Ecosystem Programs
From Strategy to Action
Designing for Complex Landscapes
Designing Participatory Methods
Designing Sustainable Institutions: The Case of the Amazonas Sustainable Foundation
The Amazon Rainforest: The Bolsa Floresta Program

Module 6: Public Policies, Programs and Projects: Evaluation and Assessment
The Holistic Design of Public Policies for SDG 15
Evaluation of Public Policies for SDG 15
Evaluation of Projects and Programs Related to SDG 15
Evaluation of International Policies Related to SDG 15

Module 7: Enabling Institutional Environments for SDG 15
Partnerships for Implementing SDG 15
Integrating SDG 15 into Local, National and Development Strategies
Enabling Environments for SDG 15: The Case of Bhutan
Financial Resources for Achieving SDG 15
Technology: Latin American and Caribbean Regional Case Study
How SDG 15 Links with Other SDGs
Putting this Course into Action
GLOBAL PUBLIC HEALTH

Understanding the value of health not just as a benefit or right of individuals, but as a global public need.

COURSE OUTLINE (PAGE 1/2)

Module 1: Introduction to Public Health
Introduction & History of Public Health
Multiple Determinants of Health
Evolution of Global Public Health
Measuring Health Status

Module 2: Trends in Public Health
Demographic and Epidemiological Transitions
Economics to Equity in Health
Globalization and Its Impact on Public Health

Module 3: Infectious Diseases
The Changing Patterns of Infectious Diseases in Time and Place
Control, Elimination, Eradication, Extinction
Zoonoses
New and Re-emerging Infectious Diseases
Childhood Diseases with a Focus on Diarrhea and Pneumonia

Module 4: Maternal and Child Health
Child Health
Maternal Health
The Sexual and Reproductive Health Agenda
The Long Shadow of Childhood Undernutrition

Module 5: Non-Communicable Diseases, Part I
Introduction to NCDs
Impact of Tobacco Abuse
Diet and Physical Activity I
Diet and Physical Activity II
Overweight, Obesity and Diabetes Mellitus
GLOBAL PUBLIC HEALTH
Understanding the value of health not just as a benefit or right of individuals, but as a global public need.

COURSE OUTLINE (PAGE 2/2)
Module 6: Non-Communicable Diseases, Part II
Cardiovascular Disease
Cancer
Respiratory Illnesses
Mental Health
Injuries (Road Traffic Accidents and Alcohol)

Module 7: Health Systems, Part I
Introduction to Health Systems
Delivering Health Services
Health Systems Financing
The Political Economy of Health Systems and Universal Health Coverage

Module 8: Health Systems, Part II
Access to Medicines I
Access to Medicines II
Working Towards Health for All
Governance Mechanisms

Module 9: Environment and Health
Climate Change and Health
Disasters

Module 10: Public Health in the 21st Century
The Threat of Antibiotic Resistance
The Challenge of Aging Populations
Health and Sustainable Development I
Health and Sustainable Development II
The Future of Public Health

LEAD FACULTY
K. Srinath Reddy
President
Public Health Foundation of India

Richard Cash
Senior Lecturer on Global Health
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Monika Arora
Director, Health Promotion Division
Public Health Foundation of India
GLOBALIZATION: PAST AND FUTURE

Is globalization a new phenomenon or a cyclical pattern throughout human history?

COURSE OUTLINE

Module 1: Waves of Globalization in History
Six Major Globalizations
Prime Drivers
The Eurasian Advantage
The Classical World
The Medieval Chinese Miracle

Module 2: Ocean-Based Globalization: 1500-1800
Sea-Based Globalization
Global Trade in Commodities
Conquest, Slavery, and Genocide in the Americas
Imperial Competition
The Beginning of Divergence of the West and Asia

James Watt Changes the World
The Next Comers: US, Germany, Japan, and the Rest
High European Imperialism
The European Immolation and Decolonization
US-led Globalization

Module 4: The New Globalization
The Eclipse of the North Atlantic
Hitting Planetary Boundaries
The Information Revolution
The Quest for Sustainable Development
Global Governance for Sustainable Development
Shared Global Vision and Ethics
HOW TO ACHIEVE THE SUSTAINABLE DEVELOPMENT GOALS

The world has adopted an ambitious agenda, the Sustainable Development Goals, to end poverty, protect the planet, and ensure prosperity for all. Learn how we can achieve these goals through careful planning and engagement of diverse stakeholders.

COURSE OUTLINE

Module 1: The SDG Framework and Agenda 2030
Scale and Scope of the SDGs
A Brief History of the SDGs
Transformation Challenges
Differential Diagnosis
Structures of Power and Decision-making

Module 2: Transformation Pathways to Success
Education, Inclusion, Jobs, and Growth
Health and Wellbeing
Clean Energy and Industry
Sustainable Food and Land Use
Smart Cities and Transport
Digital Technologies and E-Governance

Module 3: Government and the SDGs
Planning and Back-casting
Organizing Government for the SDGs
SDG Policy Instruments
SDG Pathways: The Case of Deep Decarbonization
Industrial Policies and the SDGs

Module 4: SDG Financing
Needs Assessments: Estimating Resource Needs for the SDGs
Types of Financing
Capital Markets and the SDGs
New Financing Mechanisms and Global Funds
Development Financing for the SDGs

Module 5: The Business Sector and the SDGs
The Role of Business in the SDGs
Shareholders and Stakeholders
Global Value Chains
Unsustainable Industries
Public-Private-Civil Society Partnerships

Module 6: Civil Society and the SDGs
Public Awareness and Consumer Activism
Data for Accountability and Decision-making
Investor Activism
Litigation and Human Rights
Social Business, CSOs, and Operations where Government is Weak

Module 7: Global Partnerships for the SDGs
Development Assistance
Other Dimensions of Global Partnership
The Role of Universities and SDSN
Moral Advocacy: Religious Leaders
Cross-Border Cooperation
The World in 2030: Mapping a Path Forward

LEAD FACULTY

Jeffrey D. Sachs
Professor
Columbia University
HUMAN RIGHTS, HUMAN WRONGS: CHALLENGING POVERTY, VULNERABILITY AND SOCIAL EXCLUSION

With complex legal protections and varying societal norms, how do we ensure rights for all?

COURSE OUTLINE (PAGE 1/2)

Module 1: Why Does the World Need Human Rights?
- Human Rights and Why We Need Them
- From Economic Growth to People-Centered Development
- The "Rise of Rights" in Development
- Creating Human Rights
- Are Rights Enough?

Module 2: International Legal Frameworks, Institutions, and Development
- Underlying Concepts of International Law
- United Nations Institutions
- International Law and Standards
- Regional Systems for Human Rights
- Social Inclusion

Module 3: International Human Rights Frameworks
- Special Rights for Some
- Convention on the Rights of the Child
- Convention on the Elimination of All Forms of Discrimination Against Women
- International Rights Treaties
- Limitations of Existing Standards

Module 4: Underlying Frameworks for Social Inclusion
- Subject vs. Object in Law
- Equality of Opportunity
- Affirmative Action
- Autonomy as Protection
- Law and Combatting Inequality

Module 5: Contested Rights and the Co-option of the Rights Discourse
- Hierarchy of Rights
- Collective vs. Individual Rights
- Co-option of Rights
- Intellectual Property Rights

Module 6: Gendered Poverty and Inequality
- Poverty and Wellbeing
- Gender Inequality
- Households as Sites of Inequality
- Gendered Experience of Poverty
- Attacking Gender Inequality Within Development
HUMAN RIGHTS, HUMAN WRONGS: CHALLENGING
POVERTY, VULNERABILITY AND SOCIAL EXCLUSION

With complex legal protections and varying societal norms, how do we ensure rights for all?

COURSE OUTLINE (PAGE 2/2)

Module 7: Gendered Rights and Violence
Women’s Rights
Sexual and Reproductive Rights
Violence and Legal Frameworks
Gender in the UN Human Rights Framework
Root Causes and Lived Realities
Social Communication for Social Change

Module 8: Social Exclusion: Minorities and Indigenous Peoples
Minorities and Indigenous Peoples
Issues Facing Minorities and Indigenous Peoples
Social Exclusion by Continent
Overcoming Structural Inequalities
Combatting Social Exclusion

Module 9: Advocating for the Vulnerable
Vulnerability and “Natural” Disasters
Gendered Experiences of Disaster
Social Protection: Problematising Conditional Cash Transfers
Culture vs. Rights: The Case of Female Genital Mutilation
Equalizing the Encounter: Free Prior Informed Consent

Module 10: From Exclusion to Inclusion: Responding to Crisis and Conflict
Humanitarian Response to Crisis
“Do No Harm”: The Rise of “New Humanitarianism”
International Federation of the Red Cross and Red Crescent Societies
Democratization and Political Participation: The Situation Room
Responding to Crisis: Mediating for Peace

Module 11: New Directions: Rights and the SDGs
Sustainable Development and Rights
A Vision of Rights for the Future
Pathways to Sustainable Development and Human Rights
Human Rights and the Economy
The SDGs and Beyond
INDUSTRIAL POLICY IN THE 21ST CENTURY: THE CHALLENGE FOR AFRICA

Why is there so little industry in Africa? Does it matter? What can we do about it? Hear from economist John Page about the continent's options for industrialization and the future of economic growth in Africa.

COURSE OUTLINE

Module 1: Industry as a Driver of Structural Change
Is Industry Special?
Can We Broaden the Options?
Introducing "Industries without Smokestacks"
Win-win Policies
An Agenda for Aid
Mini-documentary: How to Provide Jobs & Transform Livelihoods

Module 2: The Recipe for Industrial Growth
Drivers of Industry: Exports and the Basics
Drivers of Industry: Firm Capabilities
Drivers of Industry: Agglomerations
Lessons from East Africa
Is Manufacturing the Answer?
  Manufacturing is Still the Answer - Justin Lin
  Manufacturing Might Not be the Answer - Joseph Stiglitz
Industry Case Studies
  Light manufacturing
  Tourism
  Agribusiness

Module 3: Avoiding the Resource Curse
Natural Resources: Opportunities and Risks
Natural Resources: Investing to Invest
Lessons from Viet Nam
Lessons from Tanzania
Lessons from Senegal

Module 4: Industrial Policies for Africa
Industrial Policy: What, Why, How?
Industrial Policy in Africa
The Challenge for Africa
How to Avoid Capture of Politicians?
Lessons from Ethiopia

LEAD FACULTY
John Page
Senior Fellow of Global Economic Development
Brookings Institution
LAUDATO SI’: ON CARE FOR OUR COMMON HOME

A mini-course on the urgent call to action: protect the earth and its inhabitants from ruin

COURSE OUTLINE

Module 1: Pope Francis & the Encyclical
Cardinal Turkson, one of the chief architects of the encyclical, discusses the context in which Laudato Si’ was conceived and released. Importantly, Laudato Si’ was designed to address a broader audience—beyond the Catholic faithful—in all parts of the world and representing all belief structures.

Module 2: On Care for Our Common Home
Professor Jeffrey Sachs discusses the first chapter of Laudato Si’: “What is happening to our common home.” In this part of the encyclical, Pope Francis covers issues such as pollution and climate change, inequality, water, biodiversity loss, and the breakdown of society and the quality of human life. All are presented as integrated parts of a collective whole that need to be address in harmony.

Module 3: Theology, Philosophy & the Encyclical
Bishop Sorondo delves into the second chapter of the Pope’s encyclical, “The Gospel of Creation,” which provides the start for a broader discussion of the theological and philosophical foundation for the Laudato Si’.

Module 4: Human Roots of the Ecological Crisis
Dr. Anthony Annett illuminates the third section of the encyclical, which highlights the roots of the existing crisis. The Pope discusses the many social and environmental challenges facing the planet as part of a single crisis, brought on by a corrupt collective mindset and singular focus on power and profit.

Module 5: Global, National & Local Solutions
Professor Sachs discusses the fifth chapter of the Pope’s encyclical, “Lines of Approach & Action,” looking from the global down to the local scale of action.

Module 6: International Ecological Conversion
Beyond the steps that humanity should take collectively to address the challenges of "Integral Ecology," a personal transformation is also needed. Dr. William Vendley discusses this in the context of ecological conversion, a concept discussed throughout the Pope’s encyclical.
MACROECONOMICS FOR A SUSTAINABLE PLANET

Is it possible to develop a thriving global economy in an equitable and environmentally-resilient way?

COURSE OUTLINE (PAGE 1/2)

Module 1: Introduction to Macroeconomics
Introduction
Macroeconomic Pathologies
21st Century Perspectives on Macroeconomics
International Comparisons of Income
GDP & Well-Being

Module 2A: Output Determination & Employment
Full-Employment Economy
Deriving GDP, Part I
Deriving GDP, Part II
Labor & Saving, Part I
Labor & Saving, Part II

Module 2B: Output Determination & Employment
Economic Growth
Partial-Employment Economy
Business Cycles
Aggregate Demand Management
Problems with Aggregate Demand Management
Output Determination in the IS-LM Model

Module 3: Labor Markets
Labor Markets, Concepts, Definitions & Groups
Labor Market Institutions: Minimum Wages, Unionization & Contracts
Costs of Unemployment, Digitization of Labor, Informality & Underemployment

Module 4: Money & Central Banking
Money vs. Barter: History & Concepts
Money Demand
Money Supply: the Role of the Central Bank
The Central Bank: New Approaches to Monetary Policy

Module 5: Exchange Rates
Exchange Rate Arrangements
PPP & Interest Rate Arbitrage
The Real Exchange Rate & the Role of Non-Traded Goods
Monetary Policy: Fixed & Floating Exchange Rates
Currency Crises
MACROECONOMICS FOR A SUSTAINABLE PLANET

Is it possible to develop a thriving global economy in an equitable and environmentally-resilient way?

COURSE OUTLINE (PAGE 2/2)

Module 6: Financial Markets & Crises
Bank Runs & Panics, Part I
Bank Runs & Panics, Part II
Preventing Bank Runs
Bubbles & Crashes
Managing Insolvencies
When Governments Go Broke

Module 7: Inflation, Unemployment & Stabilization
Inflation, the Fiscal Deficit & Seigniorage
The Costs of Inflation
Inflation, Unemployment & the Phillips Curve
Stabilization Themes

Module 8: Consumption, Saving & Investment
Consumption, Saving & the Intertemporal Budget Constraint
Permanent Income Consumption Theory
Life Cycle Model of Consumption & Saving
Investment
Basic Theory of Business Investment

Module 9: Fiscal Policy and Institutions
Budget, Public Revenues & Expenditures
Saving, Investment, the Fiscal Deficit & Management of Public Debt
Interactions Between Public & Private Sectors
Fiscal Institutions & Policies

Module 10: Open Economy Issues
Aggregate Demand in an Open Economy
Aggregate Demand with a Flexible Exchange Rate
Aggregate Demand with a Fixed Exchange Rate
The Current Account & External Indebtedness
The Intertemporal Budget Constraint of a Country

Module 11: Economic Growth
Economic Growth in History, Patterns & Sectors
Sources of Economic Growth
Solow’s Growth Convergence Model
Growth & Inequality
Growth Traps

Module 12: Globalization
What is Globalization?
Development of the Global Economic System
Globalization of Population Systems
Crises of Poverty & Inequality
Challenge of Sustainable Development
NATURAL RESOURCES FOR SUSTAINABLE DEVELOPMENT

Explore the sustainable development opportunities and challenges in using oil, gas and minerals.

COURSE OUTLINE (PAGE 1/2)

Module 1: Challenges and Opportunities
History of Oil, Gas, and Mining
Challenges and Opportunities: Oil, Gas, and Mining
The Decision Chain of Natural Resource Management (I)
The Decision Chain of Natural Resource Management (II)

Module 2: Political Economy of Natural Resources
How Natural Resources Shape and are Shaped by Political Context
Corruption Trends in the Extractive Sector
International Governance
Natural Resources & the Broader Governance Framework
Transparency and Accountability

From Oil Well to Car: Market, Players, and Extraction Process
From Mine to Mobile Phone: Market, Players, and Extraction Process
How a Company Decides to Invest
Project Development
Evolving Technology

Module 4: Legal Overview
Legal and Regulatory Frameworks for Extractive Industries
Allocation of Rights
Implementation and Monitoring of Legal Frameworks
International Law and the Extractive Industries
State-owned Enterprises: Role and Governance

Module 5: Fiscal Regime Design and Revenue Collection
Resource Economics and Fiscal Regime Principles
Fiscal Instruments I: Royalty/Tax Systems
Fiscal Instruments II: Contract-based Systems
Fiscal Regime Implementation

Module 6: Anticipating and Managing Environmental Issues
Environmental Challenges and Trends: Oil and Gas
Environmental Challenges and Trends: Mining
Managing Environmental Challenges
Extractives and Climate Change
Environmental Impact Assessments
NATURAL RESOURCES FOR SUSTAINABLE DEVELOPMENT

Explore the sustainable development opportunities and challenges in using oil, gas and minerals.

COURSE OUTLINE (PAGE 2/2)

Module 7: Community Rights
Social Impact and Engagement
Human Rights and the Mining Industry
Mining and Vulnerable Populations
Company-Community Agreements

Module 8: Artisanal Mining
Introduction to Artisanal and Small-scale Mining (ASM)
Challenges of ASM
ASM and Gender
Tensions between ASM and Large-scale Mining
The Way Forward

Module 9: Revenue Management
Challenges of Revenue Management
Policy Responses: Savings, Spending, Public Debt, and Earmarking
Natural Resource Funds
Revenue Sharing and Decentralization

Module 10: Investing in Sustainable Development: Economic Linkages to the Extractives Sector
Introduction to Economic Linkages
Local Employment
Local Procurement
Enabling Tech Transfer
Downstream Linkages

Module 11: Investing in Sustainable Development: Looking beyond Extractives
Investing in Investing
Leveraging Extractive Industries for Infrastructure
Resource-for-Infrastructure Deals

Module 12: Cross-cutting Considerations and Looking Ahead
Political Tripod and Authorizing Environment
Engaging Citizens
Aligning Extractive Industries with the SDGs
ONE PLANET, ONE OCEAN

A holistic view of how the ocean functions, how human interactions with the ocean can be understood, and what solutions are available to support both sustainable use and stewardship of our blue planet.

COURSE OUTLINE (PAGE 1/2)

Module 1: One Planet, One Ocean
The Ocean MOOC
The Ocean: A Finite Resource
Concepts of Sustainability
Economic Models of Sustainability
Governing Global Commons
Values and Attitudes to the Ocean
From Science to Solutions

Module 2: Coasts
Coastal Systems
Influences from Land: Deltas under Pressure
Influences from the Ocean: Coastal Hazards
Threats from the Sea Bed
Coastal Ecosystems
Ecosystem and Nutrient Management
Coastal Solutions: Ecosystem-based Management
Future of our Coasts

Module 3: Marine Ecosystems
Dance of the Plankton
Marine Ecosystem Change and Services
Valuing Ocean Assets
Resilience and Adaptation in the Ocean
Alien Species Migrations and Range Shifts
Ocean Plastic: Where is It?
Ocean Plastic: What to Do about It?
Marine Spatial Planning

LEAD FACULTY

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ONE PLANET, ONE OCEAN

A holistic view of how the ocean functions, how human interactions with the ocean can be understood, and what solutions are available to support both sustainable use and stewardship of our blue planet.

COURSE OUTLINE (PAGE 2/2)

Module 4: Fisheries and Aquaculture
- Marine Food Chains
- Aquaculture and Mariculture
- Fisheries Economics and Management
- Sustainable Management of Fisheries
- From Attitude to Action

Module 5: Marine Life and Minerals
- Ocean Evolution
- Evolution and Marine Diversity
- Life in the Deep Sea
- Non-Renewable Ocean Resources
- Seafloor Resources: Energy and Minerals
- Ocean Exploration and Sustainable Use of Marine Resources

Module 6: Ocean and Climate
- Human Influence on the Ocean
- Changes in Ocean Circulation
- Ocean Prediction
- Ocean Heat Storage and Sea Level
- The Ocean’s Biological Pump
- Ocean Change: A Mix of Interacting Stressors
- Climate Engineering
- Sub-Seafloor Carbon Storage
PLANETARY BOUNDARIES

Can our planet continue to support the current scope of human activity?

COURSE OUTLINE

Module 1: Introduction and the Big Picture
Module 2: Welcome to the Anthropocene
Module 3: Social-Ecological Systems and Resilience Thinking
Module 4: Planetary Boundaries Framework, Part 1
Module 5: Planetary Boundaries Framework, Part 2
Module 6: Planetary Boundaries and Global Equity
Module 7: Moving towards Global Sustainability within Biophysical and Social Boundaries
Module 8: Conclusion
SUSTAINABLE CITIES

Learn how government, the private sector, and other actors can support sustainable urban development

COURSE OUTLINE (PAGE 1/2)

Module 1: The Urban Opportunity
The Urban Opportunity
Cities: Cultural and Social Transformation
Challenge of Urban Politics, Planning and Governance
Urban Research Methods
Urban Theory and History

Module 2: What Makes a City Function?
Understanding Urban Systems
Municipal, Regional and National Governance
Urban Utilities
Urban Public Finance and Taxation
Law, Order, and Conflict
Land Management and Planning
Lessons from London and Mumbai

Module 3: How Can We Reduce Urban Poverty and Make Cities Inclusive and Safe?
What is Urban Poverty?
Measuring Urban Poverty
Poverty Reduction in Cities
Affordable and Adequate Housing
Who Can Deliver the Housing We Need?
Safety and Violence
Urban Vulnerabilities

Module 4: How Can we Make Cities Productive and Reduce Inequality?
City Production and Consumption
Women in the Informal Economy
Migration, Mobility and the Urban-Rural Continuum
Wealth and Inequality
Case: SEWA, India
Migration and the Refugee Crisis

Module 5: Improving Human Development in Cities
Addressing the Challenges of Urban Public Health
Solutions for Improving Urban Health
Education and Skills
Higher Education in Cities
Gender in the City
Human Rights and Justice
Law and Equality
Apartheid in South African Cities
SUSTAINABLE CITIES

Learn how government, the private sector, and other actors can support sustainable urban development

COURSE OUTLINE (PAGE 2/2)

Module 6: Providing Universal Urban Services and Infrastructure
Sustainable Environmental Services and Infrastructure
Sustainable Transport Planning
ICT
Sustainable Urban Energy Systems
Sustainable Transport: Bangkok

Module 7: How Can Cities be Resilient?
Air, Water, Food and Natural Resources
Urban Agriculture for Sustainable Cities
City Risk Exposure
Climate Impacts, Adaptation and Mitigation
Building Urban Resilience
Environmental Planning and the Politics of Change
Sustainable Environmental Practices: Durban
Urban Disaster Risk Management
Post-disaster Recovery

Module 8: Governing Sustainable Cities
The SDGs and Other Global Processes
New Institutions and Governance
Public Participation and Democracy
Financing Sustainable Development
Measuring and Monitoring the SDGs
Opportunities of Secondary Cities

Module 9: Implementing Change
Making Cities More Sustainable
United Cities and Local Governments and Urban Sustainability
Urban Innovation: Community-based Organizations and Civil Society
UN-Habitat and International Development and Financing Agencies
Implementing Urban Sustainability
International Council for Local Environmental Initiatives and Urban Sustainability
Local Leadership: A Case Study of Melbourne
International Climate Action: A Case of Chinese Cities
SUSTAINABLE DEVELOPMENT:
THE POST-CAPITALIST ORDER

Learn why sustainable development has been adopted by countries and multilateral organizations around the world, and how this approach is transforming the way we live, work, and govern our planet.

COURSE OUTLINE (PAGE 1/2)

Module 1: What is Sustainable Development?
What is Sustainable Development?
Why Sustainable Development is Important? Happiness & Wellbeing
Global Capitalism is a Faustian Bargain: Greed in Return for Prosperity
We are Not Achieving Sustainable Development
Using Sustainable Development as Our Global Framework

Module 2: What Do Global Markets Do?
The Traditional Economy
The Market Economy: Specialization, Division of Labor, Entrepreneurship
Production Possibility Frontier
Fair or Unfair: Intragenerational and Intergenerational
The Malthusian Specter

Module 3: A Brief History of our Faustian Bargain
Traditional Empires
The Age of Discovery
The Industrial Revolution: Population and Production
The American Century
The Age of Convergence

Module 4: Capitalism and Injustice
Power (Colonialism and Slavery, Discrimination, Indigenous Rights)
Gender
Class and Inter-Generational Privileges
Skills and Jobs
The Social Democratic Idea

Module 5: The SDGs: Leaving No One Behind
Ending Poverty: Skills, Infrastructure, Inclusion, Redistribution
Universal Access to Education
Universal Access to Health Care
Universal Access to Infrastructure
Innovation Economy
SUSTAINABLE DEVELOPMENT: THE POST-CAPITALIST ORDER

Learn why sustainable development has been adopted by countries and multilateral organizations around the world, and how this approach is transforming the way we live, work, and govern our planet.

COURSE OUTLINE (PAGE 2/2)

Module 6: The Tragedy of The Commons
Growth on a Finite Planet: Is It Inherently Impossible?
The Three Big Challenges: Climate Change, Biodiversity, Pollution
The Three Big Transformations: Clean Energy and Industry, Land Use, and Smart Cities
Overcoming Obstacles: Technology, Vested Interests, Corruption, Foresight
Malthus Revisited

Module 7: From Capitalism to Sustainable Development
Six Sources of Wellbeing
Public Provision of Human Needs
Taming Corporate Greed
Limiting Monopoly Power
Subsidiarity
Education for Sustainable Development and Global Citizenship

Module 8: Achieving Sustainable Development
The Two SDGs: Sustainable Development Goals and Social Democratic Governance
Using Goals to Motivate Social Change
Regional and Global Cooperation for Sustainable Development
Engaging All Stakeholders
Financing Sustainable Development
The Ethics of Sustainable Development
SUSTAINABLE FOOD SYSTEMS: A MEDITERRANEAN PERSPECTIVE
How do we produce more, better quality, and safer food while simultaneously achieving social and environmental goals?

COURSE OUTLINE (PAGE 1/2)
Module 1: The Mediterranean Challenges around Food and Agriculture
Introduction
Mediterranean Challenges and Innovation in Food Systems
Theoretical Framework, Objectives and Course Outline
Contextualizing the SDGs for the Mediterranean Region: What Do the SDGs Mean for the Countries of the Mediterranean?

Module 2: History of Agriculture in Mediterranean Basin and the Mediterranean Diet
The Origin of Agriculture
Civilisations
Middles Ages and Early Modern
Modern Agriculture
Agriculture and Habits of Local Communities: The Origin of the “Mediterranean Diet”

Module 3: Poverty Alleviation, Economic and Social Rural Development
Economics of Food Systems
Rural Development
Markets and Supply Chains
International Trade
Development Enhancing Investments
Food Governance

Module 4: Fisheries and Aquaculture
Our Ocean: A Finite Resource
Dance of the Plankton
Marine Food Chains
Fisheries Economics and Management
Aquaculture and Mariculture
Sustainable Management of Fisheries
Summing It Up

Module 5: How to Achieve the SDGs in the Mediterranean: The Way Forward I: Water Resources and Fisheries Management
Challenges
Theoretical Chapter
Successful Case Studies in the Mediterranean

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SUSTAINABLE FOOD SYSTEMS: A MEDITERRANEAN PERSPECTIVE

How do we produce more, better quality, and safer food while simultaneously achieving social and environmental goals?

COURSE OUTLINE (PAGE 2/2)

Module 6: How to Achieve the SDGs in the Mediterranean: The Way Forward II: Sustainable Farming Systems under Environmental and Climatic Constraints
- Challenges
- Challenges at Mediterranean Level
- Theoretical Chapter
- Successful Case Studies in the Mediterranean

Module 7: How to Achieve the SDGs in the Mediterranean: The Way Forward III: Food Value Chain for Regional and Local Development
- Challenges of the Mediterranean Food Value Chains
- Theoretical Chapter
- Successful Case Studies in the Mediterranean

Module 8: How to Achieve the SDGs in the Mediterranean: The Way Forward IV: Reducing Food Waste and Enhancing By-product Innovations
- Challenges
- Theoretical Chapter
- Case Studies in Egypt

Module 9: How to Achieve the SDGs in the Mediterranean: The Way Forward V: Nutrition and Education
- Challenges
- Theoretical Chapter
- Successful Case Studies in North Africa and the Middle East

Module 10: New Professional Profiles in a Mediterranean Context
- Professional Needs to Face Sustainability Issues
- Youth & Food: New Entrepreneurs in Mediterranean Food Systems
- Professional Profiles in the Agrifood Sector
- Professional Profiles in the "Sustainable Tourism" Sector: Food as Destination Branding Driver
- The Role of Higher Education Institutions: International Cooperation, Exchange and Mobility
- A Job for the Future: The "Innovation Broker"
TECH FOR GOOD: THE ROLE OF ICT IN ACHIEVING THE SDGS

What opportunities and challenges do digital technologies present for the development of our society?

COURSE OUTLINE (PAGE 1/2)

Module 1: Welcome to the Digital Age
Introduction to the Course
Bridging the Digital Divide
Three Approaches to ICT for the SDGs

Module 2: Technology for Governments and Citizens
Equity and Access to Services
User-Driven Public Administration
It’s All About the Data
The Open Government Approach
Case Study: Aadhaar in India
The Challenges of Digital Government

Module 3: ICT Infrastructure
Enabling ICT: The Role of Infrastructure
Promoting Digital Inclusivity
Innovations in Infrastructure
Building Smart Sustainable Cities
ICT as Infrastructure: A Look at Societal Platforms

Module 4: ICT Innovations in Health
Achieving Universal Health Coverage
Improving Healthcare Delivery
Involving the Community
Evidence in Action: Success Stories of ICT and Health
Emerging Challenges and Opportunities

Module 5: Learning in Knowledge Societies
The Ecosystem of ICT for Education
Education for a Connected World
Sharing Knowledge: ICT, Openness, and Inclusion
Measuring ICT and Education: Frameworks
Measuring ICT and Education: Data and Indicators
Rethinking ICT for Education Policies

LEAD FACULTY (1/2)

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Chair
UNESCO Information For All Programme

Guilherme Canela Godoi
Regional Adviser for Communication and Information
UNESCO Montevideo Office

José Clastornik
Chief Executive, AGESIC Office of the President of Uruguay

Doreen Bogdan-Martin
Director
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International Telecommunication Union

Chief Nathaniel Ebo Nsarko
Country Director, Ghana Millennium Promise Alliance & the 1mCHW Campaign

Eduardo Diniz
Professor
Fundação Getulio Vargas
TECH FOR GOOD: THE ROLE OF ICT
IN ACHIEVING THE SDGS

What opportunities and challenges do digital technologies present for the development of our society?

COURSE OUTLINE (PAGE 2/2)

Module 6: Promoting Financial Inclusion
An Introduction to Financial Services
The Potential of Digital Platforms
Mobile Payments for Marginalized Communities
ICT for Enabling Access to Credit
Replacing the Cash Economy
The Challenges of ICT-enabled Financial Inclusion

Module 7: Measurement and Metrics
Managing Data for the SDGs
ICT Innovation for Statistical Development
Engaging with Data: Communications and Citizen Empowerment
Case Study: Brazil's Cetic.br
Measuring ICT
ICT for Monitoring the SDGs
Limitations of ICT for Monitoring the SDGs

Module 8: Artificial Intelligence
An Introduction to Artificial Intelligence
Who Drives the Agenda on “AI for Good”?
Implications for Discrimination and Exclusion
The Human Side of AI: Risks and Ethics

Module 9: Concerns for our Digital Future
Privacy and the Importance of Trust
Knowing your Data Rights
Cybersecurity
The Downsides of Digital

Module 10: The Way Forward
The New Workforce: Six Points about the Future of Work
The Meaning of Work in the Digital Era
The Open Movement
Closing Thoughts on ICT for the SDGs

LEAD FACULTY (2/2)

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Data-Driven Governance and AI Policy

Katina Michael
Professor of Computing and Information Technology
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TRANSFORMING OUR WORLD: ACHIEVING THE SUSTAINABLE DEVELOPMENT GOALS

What will it take to achieve the Sustainable Development Goals by 2030?

COURSE OUTLINE

Module 1: Getting to Know the Sustainable Development Goals
In 2012, during the Rio+20 Summit in Brazil, the 20th anniversary of the 1992 Earth Summit, the world's leaders set in motion the process that would lead to the adoption of the SDGs in September of 2015. In this module we walk through the history of the sustainable development agenda.

Module 2: Sustainable Development Plans
The 17 SDGs provide a collective ambition for the planet. To achieve the SDGs, the next step is to create Sustainable Development Plans at the country level. These strategies are essentially backcasting exercises that use the SDGs as an end point from which to plan backwards to the current day, and that carefully contextualize the SDGs for the country in question.

Module 3: Technology, Innovation, and the SDGs
The achievement of the SDGs depends heavily on the application of innovative and modern thinking and technologies. This is particularly critical for challenges such as the decarbonization of the economy to mitigate the effects of climate change. Information and communication technologies also present unique opportunities for a range of sectors.

Module 4: Good Governance and the SDGs
Global cooperation is critical to achieve the SDGs. In particular, cities have a critical role in pioneering sustainable development planning in collectively contributing to the ambition of sustainable development. Efficiently disseminating the necessary technologies, knowledge, and best practices and mobilizing financing are foundational for the achievement of the goals. Both rely heavily on global cooperation and the effective deployment of public-private partnerships.

Module 5: Business and the SDGs
The SDGs are not an agenda for policymakers alone. Most of the world’s economic activity, knowledge generation, and investment is driven by an efficient private sector. And while you cannot have a strong private sector without an effective and structured public sector, business must play a role in sustainable development.

Module 6: Universities and the SDGs
Universities around the world are fundamental to the sustainable development agenda and share a core responsibility in advancing the agenda in their respective countries. Universities, serving as hubs of innovation, accelerate exponentially the creation and exchange of knowledge and generate an ecosystem in which solutions to some of the world’s most pressing challenges can collectively be addressed by academia, business, and civil society.
WATER: ADDRESSING THE GLOBAL CRISIS

We are living in a water stressed world. It is a global crisis and therefore we must act now. What can we do to save the planet and ensure availability of water for all by 2030?

COURSE OUTLINE (PAGE 1/2)

Module 1: Introduction - Experience, Knowledge, and Understanding
Welcome to this MOOC
Introduction to Water
SDG Vision Statement in 2030

Module 2: No One Will Be Left Behind
The Global Goal on Water
Water for All, Health for All
Water-Related Ecosystems
Influencing Economies
Eliminating Inequalities
Enabling Environment for Change

Module 3: Climate Change
Weather or Climate?
Defining Vulnerability and Solutions
Climate Adaptation and Water Management
Social Fragility, Conflict, and Mitigation

Module 4: Water and Ecosystems
The State of the World’s Water Resources
Global Water Challenge: Gray-Green Solutions
Un-tapping the Potential of Wastewater
Nature-based Solutions
Nature-based Solutions: Resilience
Nature-based Solutions: Real-Life Examples

Module 5: Water Governance Crisis: Who Gets the Water, When and How?
Water Governance
Water Services Governance
Water Resource Governance: From Source to Sea
Part A: Source to Sea: The Challenge
Part B: Source to Sea :Accelerating Progress
The Impact of Water Footprints
Good Water Governance for Accelerating Progress
WATER: ADDRESSING THE GLOBAL CRISIS

We are living in a water stressed world. It is a global crisis and therefore we must act now. What can we do to save the planet and ensure availability of water for all by 2030?

COURSE OUTLINE (PAGE 2/2)

Module 6: Water and Sanitation Services and Delivery
Overview of Water, Sanitation, and Hygiene (WaSH)
Sanitation Service Chain: An Overview
Urban Sanitation
Rural Sanitation
Finance

Module 7: Transboundary Water: Source of Conflict or Solution?
From a Natural Resource into a Political Resource
The Obligation to Cooperate
Framework for Collaboration
Case Study: Middle East
Case Study: Nile

Module 8: Food and Water
Green, Blue, and Grey Water
From Field to Fork
An Inconvenient Legacy
Nature-based Solutions and Agriculture

Module 9: A Critical Connection: Water + Energy
The Nexus Approach
Case Study: A Ten-Year Program, Songwe River
How does Hydropower Impact Water?

Module 10: Case Studies
Impact Finance
Water Services in Rulindo, Rwanda
Space for Food Security
Empowering Women
Good Water Management in Industry
Agriculture History of Central Asia
Corporate Social Responsibility and Water

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