

Syllabus

The Sustainable Development Goals of the United Nations

Course Code	ENVR8163	Teaching Hours	32	Credits	2
Course Name	联合国可持续发展目标				
	The Sustainable Development Goals of the United Nations				
Instruction Language	English				
School	China-UK Low Carbon College				
Instructors	Name	Title	Department	E-mail	
	Yuquan Zhang	Associate Professor	China-UK Low Carbon College	yqwzhang@sjtu.edu.cn	
Course Description	<p>Aiming to spread the knowledge of the Sustainable Development Goals (SDG) of the United Nations and to evoke the interest in international governance that promotes exchanges between different cultural backgrounds, this course provides the international audience a China perspective on SDGs. For each SDG, this course will introduce the basics, review the development status of China's relevant work, elaborate on case studies of China or other countries and regions, and discuss the potential challenges.</p> <p>The students are expected to master the definitions of SDGs, gain an understanding of China's work in the arena of sustainable development, and develop analytical skills under a multi-faceted SDG framework. Also, the students are encouraged to brainstorm solutions that will help realize the SDGs with their own expertise. The UN SDGs were adopted in 2015, consisting of 17 SDGs that cover the societal, economic, and environmental challenges. Specifically, the SDGs include 1) no poverty, 2) no hunger, 3) good health and well-being, 4) quality education, 5) gender equality, 6) clean water and sanitation, 7) affordable and clean energy, 8) decent work and economic growth, 9) industry, innovation and infrastructure, 10) reduced inequalities, 11) sustainable cities and communities, 12) responsible consumption and production, 13) climate action, 14) life below water, 15) life on land, 16) peace, justice and strong institutions, and 17) partnerships for the goals.</p>				
Schedules	Content		Hours	Format	Instructor
	SDG1 No Poverty		2	Lecture & Discussion	Yuquan ZHANG
	1.	Overview of UN SDGs			
	2.	SDG1 and the Status of World Poverty			
3.	China's Anti-Poverty Efforts				
SDG2 No Hunger		2	Lecture & Discussion	Yuquan ZHANG	
1.	The Importance of Food Security				
2.	China's Agricultural Sector				
3.	Food Waste Reduction and Utilization				
SDG3 Good Health and Well-Being		2	Lecture & Discussion	Yuquan ZHANG	
1.	Fighting against Diseases Worldwide				
2.	China's Public Health Development				

3.	Case Study of Shenzhen			
	SDG4 Quality Education & SDG5 Gender Equality			
1.	Definitions of SDG4 and SDG5	2	Lecture & Discussion	Yuquan ZHANG
2.	Education in China & Girls			
3.	Job Market and Workplace & Gender			
	SDG6 Clean Water and Sanitation			
1.	SDG6 and Water Resources	2	Lecture & Discussion	Yuquan ZHANG
2.	China's Water Treatment			
3.	Case Studies of Shanghai and Hong Kong			
	SDG7 Affordable and Clean Energy			
1.	SDG7 and New Energy Development	2	Lecture & Discussion	Yuquan ZHANG
2.	China's Renewable Energy Sector			
3.	Outlook of New Energy			
	SDG8 Decent Work and Economic Growth			
1.	World Economy Status	2	Lecture & Discussion	Yuquan ZHANG
2.	China's Economic Status and Employment			
3.	Challenges Facing Economic Growth and Job Market			
	SDG9 Industry, Innovation and Infrastructure			
1.	World Industries Status	2	Lecture & Discussion	Yuquan ZHANG
2.	China's Industries, Innovation and Infrastructure			
3.	Challenges Facing Innovation			
	SDG10 Reduced Inequalities			
1.	Definition of SDG10 and International Inequalities	2	Lecture & Discussion	Yuquan ZHANG
2.	Societal Challenges Facing the United States			
3.	Future Development			
	SDG11 Sustainable Cities and Communities			
1.	World City Development Status	2	Lecture & Discussion	Yuquan ZHANG
2.	Low Carbon Transportation and Buildings			
3.	Outlook and Challenges			
	SDG12 Responsible Consumption and Production			
1.	SDG12 and World Development Status	2	Lecture & Discussion	Yuquan ZHANG
2.	Case Studies on China's Sustainable Consumption and Production			

	3. Future Challenges			
	SDG13 Climate Action 1. SDG13 and International Efforts Made 2. China's Climate Action 3. Building Climate Resilience	2	Lecture & Discussion	Yuquan ZHANG
	SDG14 Life below Water 1. SDG14 and International Efforts Made 2. Protecting the Oceanic Ecosystems 3. Challenges for Ocean Protection	2	Lecture & Discussion	Yuquan ZHANG
	SDG15 Life on Land 1. SDG15 and International Efforts Made 2. Protecting Terrestrial Ecosystems 3. Challenges for Biodiversity Conservation	2	Lecture & Discussion	Yuquan ZHANG
	SDG16 Peace, Justice and Strong Institutions & SDG17 Partnerships for the Goals 1. Definitions of SDG16 and SDG17 2. Legal Institutions, Protection and Assistance 3. Global Partnerships and Governance	2	Lecture & Discussion	Yuquan ZHANG
	Revisiting SDGs 1. Review of SDG1 to SDG17 2. Discovering the SDG Framework 3. Concluding the SDG Course	2	Lecture & Discussion	Yuquan ZHANG
Grading Policy	1. Attendance (10%) 2. Active participation in and contribution to classroom discussion (30%) 3. A term paper in group effort (suggesting 3 members; length not exceeding 2000 words, the sum of figures and tables not exceeding 5) (60%)			
Textbooks & References	<p>Xu, Z., Chau, S.N., Chen, X. et al. Assessing progress towards sustainable development over space and time. <i>Nature</i> 577, 74–78 (2020). https://doi.org/10.1038/s41586-019-1846-3</p> <p>Sachs, J.D., Schmidt-Traub, G., Mazzucato, M. et al. Six Transformations to achieve the Sustainable Development Goals. <i>Nat Sustain</i> 2, 805–814 (2019). https://doi.org/10.1038/s41893-019-0352-9</p> <p>De Neve, J.E., Sachs, J.D. The SDGs and human well-being: a global analysis of synergies, trade-offs, and regional differences. <i>Sci Rep</i> 10, 15113 (2020). https://doi.org/10.1038/s41598-020-71916-9</p> <p>Friedman, J., York, H., Graetz, N. et al. Measuring and forecasting progress towards the education-related SDG targets. <i>Nature</i> 580, 636–639 (2020). https://doi.org/10.1038/s41586-020-2198-8</p> <p>Carley, S., Konisky, D.M. The justice and equity implications of the clean energy transition. <i>Nat Energy</i> 5, 569–577 (2020). https://doi.org/10.1038/s41560-020-0641-6</p> <p>Brodie Rudolph, T., Ruckelshaus, M., Swilling, M. et al. A transition to sustainable ocean governance. <i>Nat Commun</i> 11, 3600 (2020). https://doi.org/10.1038/s41467-020-17410-2</p>			