

Annexe A: New/Revised Course Content in OBTL+ Format

Course Overview

Expected Implementation in Academic Year (New format)	AY2019-2020
Semester/Trimester/Others (specify approx. Start/End date)	
Course Author * Faculty proposing/revising the course	CLUNE, William Henry
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Course Title	LAW& ECON,SUSTAINABLE DEVELOPMENT,& ENVIRONMENTAL PROTECTION
Course Code	ES2201
Academic Units	4
Contact Hours	39
Research Experience Components	

Course Requisites (if applicable)

Pre-requisites	None
Co-requisites	
Pre-requisite to	
Mutually exclusive to	
Replacement course to	
Remarks (if any)	

Course Aims

The discipline of Law & Economics, and its application of economic analysis to law, provides a useful framework for understanding and evaluating sustainability and environmental policies. In its simplest and most direct form, Law & Economics is about using law and policy to create incentives so that markets and market actors function and behave optimally, including for the production of socially optimal levels of environmental protection and sustainability. This course is designed to give students from all disciplines an introduction to Law & Economics in the context of environmental protection and sustainable development. The course builds a foundation for understanding Law & Economics by (i) introducing some relevant legal systems and environmental regulatory frameworks (US, EU, and ASEAN), (ii) discussing key market actors and stakeholders and their relationships to each other and within existing legal institutions, (iii) examining key aspects of economic markets and market failures that relate to creating more effective incentives, laws, and policies for sustainability and environmental protection, and (iv) understanding the multidisciplinary and culturally dynamic nature of sustainability of which law and governance is one important pillar. With this foundation, the course explores several specific topics of Law & Economics related to Property Law, Contract Law, Torts, and Criminal Law as they support and intersect with environmental protection, sustainable economic development, and other social goals of making the every day activities and choices of key social stakeholders greener and more sustainable (for example, within our cities, in consumer behavior, with respect to economic production, and in the key roles for corporations and businesses). Throughout all modules and lessons, the course takes a specific interest in applying (directly, comparatively, and through many current examples and case studies) all of these subjects to the ongoing experience of Asia, the ASEAN region, and Singapore. By the end of the course, you will have new analytical perspectives and approaches for how Law & Economics can be applied to understanding and creating solutions to many local, regional, and global environmental impact challenges that now confront us as both major problems and substantial innovation and economic opportunities.

Course's Intended Learning Outcomes (ILOs)

Upon the successful completion of this course, you (student) would be able to:

ILO 1	Propose solutions for local, regional, and global environmental impact challenges that now confront us as both major social problems and substantial innovation and economic opportunities, using new analytical perspectives and approaches from Law & Economics
ILO 2	Differentiate and Compare some specific and general legal approaches from several sustainability and environmental protection frameworks (US, EU, and ASEAN)
ILO 3	Analyze how different aspects of economic production, consumption, and related market failures create challenges for sustainability and environmental protection, and how this, in turn, affects the ways we develop good sustainability solutions through laws, policies, and incentives
ILO 4	Distinguish and Compare specific areas of law (Property Law, Contract Law, Tort, and Criminal Law) in order to develop better incentives, laws, and policies to support sustainable economic development and environmental protection
ILO 5	Observe and Illustrate, directly, comparatively, and through many current examples and case studies, how all of these topics and subjects apply to the situation and ongoing experience of Asia, the ASEAN region, and Singapore

Course Content

Lecture/Tutorial 1: Introduction to Law & Economics; The Big Picture Case for Sustainability · Administrative Matters; Introduction to Law & Economics; The Big Picture Case for Sustainability; UN SDGs; Incentives for Sustainability · Administrative: set schedule for quizzes and tutorial presentations Lecture/Tutorial 2: Introduction to Law & Economics; Introduction to US Legal System and Environmental Laws · Introduction to Law & Economics, cont'd; Key Stakeholders; Environmental Justice; US Legal System; US Environmental Law Lecture/Tutorial 3: Introduction to EU Legal System and Environmental Laws · Quiz #1 at start of class (on lectures 1 and 2) · EU Legal System; EU Environmental Laws and Environmental Impact Challenges; Government Support of Economic Markets for Green Products and Sustainability Solutions · Tutorial Presentations Lecture/Tutorial 4: Environmental Crimes and Criminal Enforcement · Environmental Crimes and Criminal Enforcement; Law & Economics Theory of Deterrents; Examples and Challenges · Tutorial Presentations Lecture/Tutorial 5: The Economics of Sustainability and Environmental Protection · Quiz #2 at start of class (on lectures 3 and 4) · Market Failures; Externalities; Transboundary Pollution and its Management; Public Goods; Tragedy of the Commons; Rationality and Irrationality; Economic Equality for Sustainability · Tutorial: Class Exercise/Game on Funding Public Goods Lecture/Tutorial 6: ASEAN Legal Frameworks, Sustainable Development, and Environmental Protection · Quiz #3 at start of class (on lecture 5) · ASEAN Legal Frameworks; Hard Law and Soft Law; Sustainability and Environmental Protection; Introduction to Game Theory; Equilibriums; Finite versus Repeated Play Lecture/Tutorial 7: Introduction to Corporate Governance and CSR · Quiz #4 at start of class (on lecture 6) · Incorporation and Corporations Law; Legal Personality; Corporate Governance, Corporate Social Responsibility (CSR), and Sustainability · Tutorial Presentations Lecture/Tutorial 8: Sustainability · Sustainability and Sustainable Economic Development; Prosperity within Global and Ecological Limits; Defining (and Redefining) Growth and Prosperity; Equitable and Inclusive Sustainable Development; Regional and Global Level Law and Incentives · Tutorial Presentations Lecture/Tutorial 9: Sustainable Cities and Urbanization · What is a City?; Urbanization; Sustainability Challenges and Opportunities for Cities; Local Level Law and Incentives; Singapore, Traffic Congestion, and Congestion Taxes (ERP) · Tutorial Presentations Lecture/Tutorial 10: A Law & Economics Approach to Property Law · Quiz #5 at start of class (on lectures 8 and 9) · Property Rights and Property Law; Ownership, Use, and Remedies; The Coase Theorem; Water Rights and Legal Regimes; Tragedy of the Commons · Tutorial Presentations Lecture/Tutorial 11: Valuation, Environmental Services, and Internalizing All Costs of Pollution · Quiz #6 at start of class (on lecture 10) · Economic Valuation of Environmental Amenities and Disamenities; CBA; Internalizing Externalities; Environmental Services; Circular Economy; EU Carbon Emissions Trading Scheme · Tutorial Presentations Lecture/Tutorial 12: A Law & Economics Approach to Tort Law · Tort Law and Tort Liability; Litigation, Environmental Protection, and Punitive Damages; Climate Change Litigation · Tutorial Presentations Lecture/Tutorial 13: A Law & Economics Approach to Contract Law · Quiz #7 at start of class (on lectures 11 and 12) · Administrative: Final Projects/Papers · Contract Law, Bargaining, and Remedies; Applications to Sustainability; Game Theory Revisited · Tutorial Presentations End of Course

Reading and References (if applicable)

Nil

Planned Schedule

Week or Session	Topics or Themes	ILO	Delivery Mode	Activities	Readings
1	Lecture/Tutorial 1: Introduction to Law & Economics; The Big Picture Case for Sustainability	3,5	In-person		- Introduction to Law & Economics; The Big Picture Case for Sustainability; UN SDGs; Incentives for Sustainability - Administrative: set schedule for quizzes and tutorial presentations
2	Lecture/Tutorial 2: Introduction to Law & Economics; Introduction to US Legal System and Environmental Laws	2,5	In-person		- Introduction to Law & Economics, cont'd; Key Stakeholders; Environmental Justice; US Legal System; US Environmental Law
3	Lecture/Tutorial 3: Introduction to EU Legal System and Environmental Laws	2,5	In-person	- Quiz #1 at start of class (on lectures 1 and 2) -Tutorial Presentations	- EU Legal System; EU Environmental Laws and Environmental Impact Challenges; Government Support of Economic Markets for Green Products and Sustainability Solution A Comparative Law Analysis of the Use of State-Level Green Procurement in The European Union and The United States; William Henry Clune (Nordic Environmental Law Journal, December 2011)
4	Lecture/Tutorial 4: Environmental Crimes and Criminal Enforcement	2,5	In-person	- Tutorial: Class Exercise/Game on Funding Public Goods	- Environmental Crimes and Criminal Enforcement; Law & Economics Theory of Deterrents; Examples and Challenges

Week or Session	Topics or Themes	ILO	Delivery Mode	Activities	Readings
5	Lecture/Tutorial 5: The Economics of Sustainability and Environmental Protection	1,3,4,5	In-person	- Quiz #2 at start of class (on lectures 3 and 4)- Tutorial Presentations	- Market Failures; Externalities; Transboundary Pollution and its Management; Public Goods; Tragedy of the Commons; Rationality and Irrationality; Economic Equality for Sustainability
6	Lecture/Tutorial 6: ASEAN Legal Frameworks, Sustainable Development, and Environmental Protection	1,2,3,5	In-person	- Quiz #3 at start of class (on lecture 5)	- ASEAN Legal Frameworks; Hard Law and Soft Law; Sustainability and Environmental Protection; Introduction to Game Theory; Equilibriums; Finite versus Repeated Play
7	Lecture/Tutorial 7: Introduction to Corporate Governance and CSR	2,3	In-person	- Quiz #4 at start of class (on lecture 6)- Tutorial Presentations	- Incorporation and Corporations Law; Legal Personality; Corporate Governance, Corporate Social Responsibility (CSR), and Sustainability
8	Lecture/Tutorial 8: Sustainability	1, 2, 3, 4, 5	In-person	- Tutorial Presentations	- Sustainability and Sustainable Economic Development; Prosperity within Global and Ecological Limits; Defining (and Redefining) Growth and Prosperity; Equitable and Inclusive Sustainable Development; Regional and Global Level Law and Incentives - Planetary Boundaries: Exploring the Safe Operating Space for Humanity; Johan Rockström (Stockholm Resilience Centre) et al (Ecology and Society, Vol 14, No 2, Art 32, 2009)

Week or Session	Topics or Themes	ILO	Delivery Mode	Activities	Readings
9	Sustainable Cities and Urbanization	1, 2, 3, 4, 5	In-person	- Tutorial Presentations	What is a City?; Urbanization; Sustainability Challenges and Opportunities for Cities; Local Level Law and Incentives; Singapore, Traffic Congestion, and Congestion Taxes (ERP The Three Pillars of Sustainability Framework: Approaches for Laws and Governance; William Henry Clune & Alexander J. B. Zehnder (Journal of Environmental Protection 9, March 2018) Week 10 Lecture/Tutorial 10: A Law & Economics Approach to Property Law 1,4,5 -
10	Lecture/Tutorial 10: A Law & Economics Approach to Property Law	1,4,5	In-person	- Quiz #5 at start of class (on lectures 8 and 9) - Tutorial Presentations	- Property Rights and Property Law; Ownership, Use, and Remedies; The Coase Theorem; Water Rights and Legal Regimes; Tragedy of the Commons - The Problem of Social Cost; Ronald Coase (3 Jrnl of Law and Econ, pp 1-44, 1960)
11	Lecture/Tutorial 11: Valuation, Environmental Services, and Internalizing All Costs of Pollution	1,3,5	In-person	- Quiz #6 at start of class (on lecture 10)- Tutorial Presentations	- Economic Valuation of Environmental Amenities and Disamenities; CBA; Internalizing Externalities; Environmental Services; Circular Economy; EU Carbon Emissions Trading Scheme

Week or Session	Topics or Themes	ILO	Delivery Mode	Activities	Readings
12	Lecture/Tutorial 12: A Law & Economics Approach to Tort Law	1,4,5	In-person	Tutorial Presentations	- Tort Law and Tort Liability; Litigation, Environmental Protection, and Punitive Damages; Climate Change Litigation
13	Lecture/Tutorial 13: A Law & Economics Approach to Contract Law	1,4,5	In-person	- Quiz #7 at start of class (on lectures 11 and 12) -Tutorial Presentations	- Administrative: Final Projects/Papers - Contract Law, Bargaining, and Remedies; Applications to Sustainability; Game Theory Revisited
14	-	-		-	-
15	Final Term Papers/Projects Submitted	1,2,3, 4, 5	In-person	- the due date is generally the second Friday after regular lectures end (exact date changed as year and scheduling require)	

Learning and Teaching Approach

Approach	How does this approach support you in achieving the learning outcomes?
Lecture	Lectures will focus on giving the main facts, context, background, theories, models, and analytical frameworks to understand and use Law & Economics; the extensive background and lecture material is necessary since this is an introductory course with no prerequisites, and the subjects of law, economics, and Law & Economics are generally new to most of you; a focus on examples and current case studies (many from Asia and Singapore) helps you apply and interpret the information
Tutorials	- games and in-class exercises (for example, funding public goods game) help you see in a hands-on and fun way how theories work, particularly as related to key points about the interaction of market actors as it affects environmental impact challenges - presentations; the articles and papers assigned are classic and/or cutting edge Law & Economics materials; updating with most current information is one point; but the bigger goal pedagogically is getting students directly engaged in analyzing and critical thinking of course concepts; this is simultaneously good for their comprehension and retention of material; another benefit here is that it's very helpful to the other students to hear class concepts interpreted by someone from your own cohort/age/gender (especially for a subject like sustainability, which has a highly dynamic social and cultural aspect); the articles and papers assigned are often reinforcing of class concepts, but just as often provocative and challenging to standard theories and/or class lectures, and are therefore designed to stimulate discussion and new questions; also, a number of legal cases are assigned to augment the context, history, and background of these topics

Assessment Structure

Assessment Components (includes both continuous and summative assessment)

No.	Component	ILO	Related PLO or Accreditation	Weightage	Description of Assessment Component	Team/Individual	Rubrics	Level of Understanding
1	Continuous Assessment (CA): Others([quiz/test] in class quizzes)	1, 2, 3, 4	1, 3, 4, 5	35		Individual		
2	Continuous Assessment (CA): Others([presentations] in class tutorial presentation)	1, 2, 3, 4, 5	1, 2, 3, 4, 5, 6	20		Individual		
3	Continuous Assessment (CA): Others([assignments (e.g. term paper, essay)] final term project/paper)	1, 2, 3, 4, 5	1, 2, 3, 4, 5, 6	35		Individual		
4	Continuous Assessment (CA): Others([class participation])	1, 2, 3, 4, 5	1, 2, 3, 4, 5, 6	10		Individual		

Description of Assessment Components (if applicable)

Formative Feedback

Formative feedback will be provided for each assessment element and in a manner appropriate for that assessment element:

1) in class quizzes (7 total, starting lecture 3, given start of class, drop 1 lowest score)

· feedback the following week with returned/graded quizzes and scores; answer key posted in NTULearn after each quiz

2) in class tutorial presentation (power point slides, 2 for each student, on an article or paper the instructor assigns in advance)

- direct written feedback given by e-mail after you complete a presentation; the articles/papers to be presented on are distributed in this way by e-mail, so the follow up is done in the same, direct manner; both as to general matters and/or suggestions for improvement and/or critiques, and with specific grade/points for each presentation

3) final term project/paper (due at the end of the course)

- because the final term project/paper is due after the course ends, feedback will be prospective and proactive, coming in the form of instructor-student interactions throughout the term related to selection of a suitable topic, discussion about project format, and updates on project progress

- many of these discussions and meetings are mandatory, taking place in class as part of ongoing reminders and updates about deadlines and project expectations; some of these meetings are voluntary and are offered to all students to make an appointment during office hours when/if they want input/help/advice

- this approach has worked well for the course in the past, the final projects/papers are of a generally very high quality, and instructor-student interaction about the projects/papers occurs in a variety of informal or formal (updates during class or during scheduled office hours) settings depending on your need or preference

4) class participation

- feedback given through ongoing, in-class discussions, including attendance and being present for all in-class activities; to some extent feedback in this case is also the responsibility of the instructor to engage students who participate less, or who are quieter; the class subject is suitable for the legal "socratic method" of calling on you to recapitulate or extend ideas and concepts under discussion; as expected, all ASE students have valuable discussion contributions to make, some speak often and voluntarily, and some have to be encouraged a bit to speak up

The goal of this feedback is reasonable transparency (such that you know where you stand) and useful feedback (suggestions and input that's timely for use on future course assignments).

NTU Graduate Attributes/Competency Mapping

This course intends to develop the following graduate attributes and competencies (maximum 5 most relevant)

Attributes/Competency	Level
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Course Policy

Policy (Academic Integrity)

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Policy (General)

(2) General

You are expected to complete all assigned pre-class readings and activities, attend all seminar classes punctually and take all scheduled assignments and tests by due dates. You are expected to take responsibility to follow up with course notes, assignments and course related announcements for seminar sessions they have missed. You are expected to participate in all class and tutorial discussions and activities.

Policy (Absenteeism)

(3) Absenteeism

Absence from class without a valid reason will affect your overall course grade. Valid reasons include falling sick supported by a medical certificate and participation in NTU's approved activities supported by an excuse letter from the relevant bodies. If you miss a lecture, you must inform the course instructor via email prior to the start of the class.

Policy (Others, if applicable)

Related to In-Class Quizzes; the quizzes take the place of a final exam for in-class assessment on specific lecture and course topics, and will be treated with the same seriousness and academic integrity expectations as for a final exam; an MC from the ASE office is needed for missing a quiz (zero grade with no MC), and a make-up assignment is then still required (if you want points for that quiz) in the form of a 5-6 page take-home essay question (1 week for you to complete) as assigned by the instructor

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Last Updated By: Sze Chun Chau (Dr)