SORBONNE UNIVERSITY ABU DHABI

Master in
SUSTAINABLE ENVIRONMENTAL ENGINEERING AND LAW (SEEL)

COURSE CATALOGUE FOR THE 2025-2026 ACADEMIC YEAR

The Master in Sustainable Environmental Engineering and Law is a comprehensive two-year programme delivered by world-class academics at Sorbonne University Abu Dhabi.

The programme is designed to equip students with advanced knowledge and skills in environmental law , environmental engineering and geography.

Sustainable Environmental Engineering and Law (SEEL)

Programme Code: 45-MA-SEEL

Level: Postgraduate

Credits and Duration: 120 ECTS credits taken over 4 semesters - 24 months full time.

Delivery Language: English

Learning Outcomes

PLO 1	**Model relationships between environmental components and processes highlighting the effect of anthropogenic factors.**
PLO 2	**Apply the legal and regulatory framework relevant to scenarios of environmental management.**
PLO 3	**Analyse and critically evaluate the contemporary environmental issues and challenges in the UAE, across the region and around the world.**
PLO 4	**Apply problem-solving skills using innovative engineering and artificial intelligence-based methods.**
PLO 5	**Develop contextual and effective solutions to restore and conserve the environment using a transdisciplinary and ethical approach as well as teamwork, decision-making and leadership skills.**
PLO 6	**Conduct independent scientific research, employing appropriate methodologies to investigate and address environmental issues that contributes to the body of knowledge in sustainable environmental engineering and law.**

SORBONNE UNIVERSITY ABU DHABI

Postgraduate

Academic calendar 2025-2026

AUGUST

M	T	W	T	F	S	S
28	29	30	31	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

- 25-31 Aug: Orientation week

SEPTEMBER

M	T	W	T	F	S	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	1	2	3	4	5

- 1 Sep: Start of Semester 1
  Click here for first day of classes information
- 4 Sep: Prophet Muhammad's Birthday

OCTOBER

M	T	W	T	F	S	S
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2

NOVEMBER

M	T	W	T	F	S	S
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

- 5 Nov: Astrolabe Career Fair

DECEMBER

M	T	W	T	F	S	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

- 1 Dec: Commemoration Day
- 2-3 Dec: UAE National Day
- 11 Dec: SUAD Networking Night
- 15 Dec-11:Jan Winter Break
- 25 Dec: Christmas Day

JANUARY

M	T	W	T	F	S	S
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	1

- 1 Jan: New Year
- 12-21 Jan: Semester 1 exams
- 26 Jan: Start of Semester 2

FEBRUARY

M	T	W	T	F	S	S
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	1

- 11 Feb: Employability Day
- 16 Feb: Start of Holy Month of Ramadan

MARCH

M	T	W	T	F	S	S
23	24	25	26	27	28	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

- 18-21 Mar: Eid Al Fitr
- 23 Mar- 5 Apr: Spring Break

APRIL

M	T	W	T	F	S	S
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	1	2	3

MAY

M	T	W	T	F	S	S
27	28	29	30	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

- 1 May: Labor Day
- 10 May: End of classes
- 11-17 May: Revision Week
- 18-31 May: Semester 2 exams
- 26 May: Arafat's Day
- 27-29 May : Eid Al Adha

JUNE

M	T	W	T	F	S	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

- 17 June: Islamic New Year
- 18-29 June: Catch-up session
- 29 June: End of Academic Year for all undergraduate students

- Classes
- Academic Holiday
- University summer closure
- Integration week
- Revision Week
- Exam period

All National & Religious Holidays are tentative and subject to change

Programme Overview:

The Master in Sustainable Environmental Engineering and Law (SEEL) is a master's diploma with a degree encompassing environmental engineering, geography sciences and environmental law. Its objective is to enable students to acquire comprehensive multidisciplinary skills, both theoretical and practical. These are further enhanced by learning methodologies and practical skills (research training, complex project management).

This unique degree programme in the region, is meticulously designed to explore the synergy between environmental engineering, environmental law, and geography sciences, equipping students to navigate the intricate relationship between legal systems and spatial dynamics in environmental management.

The programme seamlessly combines environmental engineering, law, and geography sciences, offering students a 360-degree view of environmental challenges.

Programme Structure: The Master in Sustainable Environmental Engineering and Law (SEEL) requires the successful completion of 120 ECTS comprising:

Programme Structure:

	UE	Course code	Course name	Credits	Hours
1st Semester	1.1	SEEL-511	Environmental Data Science and Analytics	5	25
	1.2	SEEL-512	Sustainable Water Management and Sanitation	5	20
	1.3	SEEL-513	Location Intelligence for Environmental Engineering	2	10
	2.1	SEEL-514	International Environmental Law	4	20
	2.2	SEEL-515	Sustainable Development: Politics and Policies	4	20
	2.3	SEEL-516	Environmental Policies and Economics	4	20
	3.1	SEEL-517	Sustainable Cities and Communities	4	20
	4.1	SEEL-518	Project Management 1	2	5

	UE	Course code	Course name	Credits	Hours
2nd Semester	1.1	SEEL-520	Environmental Monitoring and Modelling	4	25
	1.2	SEEL-521	Landscape Evolution under Climate Change	2	10
	1.3	SEEL-522	Sustainable Agriculture Towards Food Security	2	10
	1.4	SEEL-523	Coastal Management	4	25
	2.1	SEEL-524	Water Law and Natural Resources Management	3	20
	2.2	SEEL-525	Climate Change Action	3	20
	2.3	SEEL-526	Biodiversity Law	3	10
	2.4	SEEL-527	Legal Aspects of Food Security	3	10
	3.1	SEEL-528	Environmental Mobility	4	10
	4.1	SEEL-529	Project Management 2	2	5

Programme Structure:

	UE	Course code	Course name	Credits	Hours
3rd Semester	1.1	SEEL-531	Big Data and Artificial Intelligence for Environmental Engineering	8	15
	2.1	SEEL-532	Environmental Law and Human Rights	4	10
	2.2	SEEL-533	Environmental Litigation	4	10
	2.3	SEEL-534	Corporate, Environment and Social Responsibility	4	10
	3.1	SEEL-535	Energy Transition: Strategies and Policies	4	20
	4.1	SEEL-536	Research Methodology	6	15

	UE	Course code	Course name	Credits	Hours
4th Semester	1.1	SEEL-540	Thesis	30	-

Master 1 Semester 1

Course code and title	**SEEL-511 – *Environmental Data Science and Analytics***
Instructor	Dr Kosmas Pavlopoulos (Professor), in collaboration with Dr Evan Paleologos (Professor)
Course format	2-week mission
Credits	5
Contact hours	25
Supervised Independent Work	5
Course description	This course aims to familiarise students with current environmental problems and the scientific and technical solutions to them. The first part of the course explains the importance to understand data science and statistics concepts for environmental data management and help environmental professionals to draw the best conclusions when analysing any data set. This course provides a better understanding of data and what it means to interpret it appropriately and generate insights in a variety of environmental contexts. It aims to apply data science techniques, including environmental modelling, machine learning, visualisation and data curation, to environmental data, with an emphasis on analysis. Two practical case studies will be conducted: • on air pollution and its effects on health. • on municipal solid waste (MSW) management. This includes landfills and waste-to-energy treatment facilities as well as the recycling and reuse of MSW and the circular economy national strategies in the world and the UAE. The problem of plastic pollution and the health effects on ecosystems and on human heath are discussed. The extent of microplastic pollution in the seas, the oceans, and the Arabian Gulf is presented together with the policies to control plastic pollution in the world and the UAE. The course addresses several U.N. Sustainability Development Goals (SDGs) that include: • SDG6: Water and Sanitation; • SDG7: Affordable and Clean Energy; • SDG13: Climate Action; • SDG14: Life Below Water, and • SDG15: Life on Land.
Evaluation	CA: 50% Project report, 50% In-class assessment

Course code and title	**SEEL-512 – *Sustainable Water Management and Sanitation***
Instructor	Dr Kosmas Pavlopoulos (Professor), in collaboration with Dr Daniel Moraetis (Associate Professor)
Course format	2-week mission
Credits	5
Contact hours	20
Supervised Independent Work	10
Course description	This course covers concepts and the subject of integrate water resources management which include drainage basins management, land uses, water bodies, groundwater monitoring, wetlands and ecosystems, water exploitation, desalination, pollution and remediation. It outlines how these resources are to be conserved, developed and managed in a rational and sustainable manner. It also includes case studies related to water sanitation, groundwater, air and soil contamination, as well as the sources, types and pollutants contents. Treatment of reclaim water and re-use (treatment plants). Re-use of reclaim water, using SAT (Soil Aquifer Treatment) and SAR (Storage Aquifer and Recovery) methods and techniques towards sustainable water resources storage and use... Through case studies, students will understand the global challenges in this field. They will learn the scientific basis of pollution transport in water, soil and air, and discover technologies related to pollution prevention. Environmental modelling will be demonstrated in basic chemical reactions into the soils and unconfined aquifers, related to urban and industrial pollution. In addition, students will study the main international treaties and agreements dealing with environmental issues, focusing on their implications for global environmental governance. They will be exposed to the history of environmentally friendly concepts through to current international treaties. The strategic plans and perspectives of the GCC and UAE in the context of climate change and the UN SDG's will also be discussed.
Evaluation	CA: 30% Teamwork project report, 30% Teamwork project (Oral presentation), 40% In-class assessment

Course code and title	**SEEL-513 – *Location Intelligence for Environmental Engineering***
Instructor	Dr Haifa Ben Romdhane
Course format	1-week mission
Credits	2
Contact hours	10
Supervised Independent Work	5
Course description	This course helps explaining and applying all these concepts by exploring the components of the GIS and different data types and structures and by providing cases of environmental geoprocessing. Students learn about GIS components, data models and data types and then are introduced to both field and modelling methods using GIS analysis tools to measure and estimate models' parameters and acquire how the results are applied in real-world situations.
Evaluation	CA: 50% Individual exam (in class), 50% Project presentation

Course code and title	**SEEL-514 – *International Environmental Law***
Instructor	Dr Maia-Oumeima Hamrouni
Course format	2-week mission
Credits	4
Contact hours	20
Supervised Independent Work	10
Course description	This remedial course offers first-year Master's students in the SEEL programme a foundational yet conceptually robust introduction to the principles, sources, and institutional architectures of International Environmental Law (IEL). Emphasis is placed on the evolving role of IEL in addressing contemporary challenges related to sustainable development, environmental governance, and transboundary ecological risks. Designed to support students whose academic trajectories may not include formal legal training, the course aims to develop essential legal literacy and equip participants with the analytical tools necessary to engage critically with the legal dimensions of environmental protection in a multidisciplinary context. The course traces the historical evolution and formalisation of international environmental norms, from early declarations and soft law instruments to binding multilateral environmental agreements (MEAs). Core instruments such as the 1972 Stockholm Declaration, the 1992 Rio Declaration on Environment and Development, the 2015 Paris Agreement, and the 1982 United Nations Convention on the Law of the Sea (UNCLOS) are examined in depth, alongside legal frameworks governing biodiversity, climate change, and pollution control. Through a combination of theoretical discussion and case-based analysis, students explore the structure, competencies, and limitations of key international institutions, and specialised treaty bodies. Attention is given to mechanisms of compliance, dispute resolution, and the role of IEL in mitigating environmental harm across national jurisdictions.
Evaluation	CA: 50% Essay question, 50% Report

Course code and title	**SEEL-515 – *Sustainable Development: Politics and Policies***
Instructor	Dr Loic Batel
Course format	2-week mission
Credits	4
Contact hours	20
Supervised Independent Work	10
Course description	This course addresses the pressing need for sustainable development by exploring the multifaceted challenges that arise from current consumption and production patterns. It examines the environmental, economic, social, and geopolitical consequences of unsustainable practices, with a focus on climate change, biodiversity, and resource management. Students will gain a deep understanding of the risks and necessary transformations required to avoid dramatic disruptions in societal balance. They will also be introduced to the complex interplay between sustainable development and human relations, with a particular emphasis on equitable access to health, education, and resources. The course will critically assess the solutions proposed by international, regional, and national authorities, including the United Nations Sustainable Development Goals (SDGs) and standards from institutions such as the ISSB, TNFD, and the Financial Stability Board. Students will engage with concrete case studies, such as water resources and climate efforts in the UAE and analyse the growing importance of green finance. Additionally, the course will explore international negotiations and policy initiatives, providing practical insights through role-playing exercises and real-world examples, such as climate loans for developing countries and national recycling programmes.
Evaluation	CA: 50% In-class quizzes, 50% Presentations

Course code and title	**SEEL-516 – *Environmental Policies and Economics***
Instructor	Prof Yannick Perez
Course format	2-week mission
Credits	4
Contact hours	20
Supervised Independent Work	10
Course description	Environmental economics is now well-established, branch of economic study. In successfully applying standard microeconomic analysis to the field of the natural environment and sustainable development, economists have challenged many erroneous but strongly held preconceptions about environment management. The course helps to understand the environmental policies and the consequences of economic growth and grasp the obstacles toward achieving strong multilateral agreements for solving international and global environmental problems. The topics covered will include: • Environmental externalities and the theory of market failure • Economics of pollution control (the efficient level of environmental pollution, taxes, tradeable permits, command-and-control) • Economics of natural resource use (non-renewable resources such as oil, gas and metals as well as renewable resources such as fish and forests) • Economics of international environmental problems (including the impact of trade and investment liberalisation on the environment) • Economics of climate change (including the analytical controversy among environmental economists and a focus on the Kyoto Protocol as the only global agreement on reducing greenhouse gas emissions). This course aims to provide students with a sound knowledge and understanding of the major results of environmental economics and policies. Its intention is to deliver the fundamentals of rigorous economic analysis and some practical examples.
Evaluation	50% Dissertation (final exam): End of the course, 50% Report on a chosen topic: The report must be submitted 2 weeks after the end of the course

Course code and title	**SEEL-517 – *Sustainable Cities and Communities***
Instructor	Mr Lukas Sokol
Course format	2-week mission
Credits	4
Contact hours	20
Supervised Independent Work	10
Course description	Cities and communities are the physical manifestation of the vision, goals, principles, and culture of a society. They are the evidence how humanity can develop technology to organise itself into the complex physical manifestation of cities that highlight the values of civilisation. Cities are also a testament that these megastructures can have unintended social and environmental consequences that need to be addressed. This course introduces students to the basic formal and systemic anatomy of cities and communities, the interdisciplinary processes by which they are developed, the sustainability accounting frameworks deployed, and the traditional and emerging tools used to facilitate their planning, design, construction, and operations. Immersion is achieved through a variety of pedagogic methodologies and media including Case Studies, Readings, Site Visits, and in-class Exercises.
Evaluation	CA: 15% In-class assignment, 85% Project report

Course code and title	**SEEL-518 – *Project Management 1***
Instructor	Dr Richard Perry
Course format	2 days
Credits	2
Contact hours	5
Course description	This course introduces elements of project management concepts and aspects that are critical to the success of projects. These include the objectives, resources, short- and long-term deliverables and benefits of a project that expand beyond a narrow corporate scope, but include environmental, sustainability, and societal benefits. The course explains the steps in a project, which include clarifying project goals and objectives, developing a work breakdown in structure, creating a project risk plan, producing a realistic schedule, and controlling and evaluating progress at every project phase. The distinction of the management of projects, programmes, and portfolio of an organisation is analysed with examples for each. The difference between project and business success is presented with examples of real cases where a particular project succeeded, whereas it failed as a business endeavor. The most common reasons for cost overruns are presented. The models for a project's life cycle, which include the waterfall model, and the agile (adaptive) method are presented with examples to illustrate their use. Finally, different management leadership styles are detailed with real examples.
Evaluation	CA: 50% Project presentation, 50% Project report

Master 1 Semester 2

Course code and title	**SEEL-520 – *Environmental Monitoring and Modelling***
Instructor	Dr Michael Foumelis (Assistant Professor)
Course format	2-week mission
Credits	4
Contact hours	25
Supervised Independent Work	5
Course description	The course is designed to explain and practice the methodological chain from environmental monitoring (based on Earth observation - EO) to modelling using geographic information systems. After a presentation of the fundamental principles of remote sensing, students will receive an overview of European Space Agency (ESA) space activities, with dedicated sessions on EO missions and initiatives, as well as comprehensive guidance on product definitions and data access protocols. Additionally, participants will receive an introduction to utilising open-source toolboxes, followed by hands-on practical exercises covering a range of application domains. Geospatial data will be integrated into a Geographic Information System (GIS) to develop environmental modelling (for prediction, assessment and analysis of environmental impacts). Interactive sessions will include practical exercises covering key areas related to land surface and ocean applications (urban expansion, change detection, oil spill detection, costal bathymetry etc.), geohazards (flood mapping, land subsidence monitoring, etc.), and climate change aspects (e.g. vegetation and temperature mapping, coastal areas).
Evaluation	CA: 50% In-class assignment (software application), 50% Teamwork presentation

Course code and title	**SEEL-521 – *Landscape Evolution under Climate Change***
Instructor	Prof Denis Mercier
Course format	3-day mission
Credits	2
Contact hours	10
Supervised Independent Work	5
Course description	At all latitudes, the climate is different and is one of the factors which controlling the evolution of landscapes. Temperatures and precipitation distribution during time are the main quantifiable variables of climate change. Four parts will successively address the fundamental points, and specific examples will then be developed according to landscape types. 1. The course will begin by presenting the main parameters of climate change (rising temperatures, changes in precipitation patterns, melting of the cryosphere, sea level rise, etc.). 2. Secondary, the course will focus on the evolution of landscapes at different time scales. 3. Mountainous environments in the face of climate change will be analysed in different morphoclimatic zones around the world (Asia, the European Alps, high latitudes, etc.). 4. River valleys facing climate change will also be analysed in different morphoclimatic zones around the world and coastal environment response.
Evaluation	CA: 50% Homework, 50% In-class assignment

Course code and title	**SEEL-522 – *Sustainable Agriculture Towards Food Security***
Instructor	Dr Haifa Ben Romdhane
Course format	1-week mission
Credits	2
Contact hours	10
Supervised Independent Work	10
Course description	Sustainable agriculture is indispensable for achieving food security by promoting resilient, environmentally-friendly, and socially-equitable food production systems. Investing in sustainable agriculture practices and policies is essential for addressing the challenges of hunger, malnutrition, and environmental degradation facing the world today. This course will focus on: • **Conservation of Resources:** Sustainable agriculture practices aim to conserve natural resources such as soil, water, and biodiversity. This ensures that agricultural land remains productive over the long term, contributing to food security. • **Climate Resilience:** Sustainable agriculture often involves practices that mitigate the impacts of climate change and enhance resilience to its effects. • **Diversification:** Sustainable agriculture promotes crop diversity, which is essential for food security. • **Reduced Input Dependency:** Sustainable agriculture aims to minimise reliance on synthetic inputs such as chemical fertilisers and pesticides. By reducing input dependency, sustainable agriculture lowers production costs for farmers, improves environmental health, and enhances the accessibility of healthy, chemical-free food for consumers. • **Support for Small-Scale Farmers:** Many sustainable agriculture practices (such as agroecology and community-supported agriculture) are particularly beneficial for small-scale farmers who make up a significant portion of the global agricultural workforce. • **Long-Term Viability:** Sustainable agriculture is focused on meeting the needs of the present without compromising the ability of future generations to meet their own needs. This course will be based on case studies, including the analysis of different types of documents.
Evaluation	CA: 50% Project (written report), 50% In-class assessment

Course code and title	**SEEL-523 – *Coastal Management***
Instructor	Dr Kosmas Pavlopoulos (Professor) in collaboration with Mr Walid Mekni (Professional & PhD student)
Course format	2-week mission
Credits	4
Contact hours	25
Supervised Independent Work	5
Course description	This course covers the concepts and practices of integrated coastal systems management, including: 1. the coastal engineering (coastal processes and shoreline management), 2. the marine geotechnical engineering, 3. the environmental / sustainability engineering, and 4. the coastal hazards management... After defining the concept of integrated management of coastal systems, the various infrastructures that form part of them, including beaches, entertainment coastal facilities, artificial islands, harbors, marinas, to industrial investments such as cooling sea-water intakes for nuclear power plants, submarine pipelines for oil and gas export, military navy ports, natural coastal reserves will be detailed. The last part of the course will focus on the management of natural and technological risks in coastal areas, to provide visibility into the threat spectrum including the systematic approaches in identifying critical infrastructures, including artificial islands and key resources as a basis for risk acceptance and mitigation. In understanding risk and vulnerability, students learn to address appropriate countermeasures in an objective, quantifiable way. Topics include a world-wide overview of coastal hazards (and disasters): vulnerability and risk assessments, sustainable hazards mitigation, international, government and private sector roles and responsibilities; disaster planning, coordinating community resources; disaster preparedness; formal and informal disaster response; disaster recovery; disasters and development; information technology; theory and data; and issues in emergency management.
Evaluation	CA: 30% Teamwork project (report), 30% Teamwork project (oral presentation), 40% In-class assessment

Course code and title	**SEEL-524 – *Water Law and Natural Resources Management***
Instructor	Dr Anthony Chamboredon
Course format	2-week mission
Credits	3
Contact hours	20
Supervised Independent Work	10
Course description	This course delves into the interdisciplinary nature of Water Law, exploring legal frameworks that must account for the specific geographic, historical, climatic, and socio-economic contexts of each region. Students will examine how water laws have evolved in response to increasing demand, resource scarcity, and the need for more sustainable and equitable use of water. Particular attention will be given to legal bottlenecks, outdated legislation, and the reforms required to address contemporary challenges in water resource management. The course highlights the critical role of legal aspects in water management and infrastructure planning, emphasising the impact of legislation on the availability and quality of water. Students will analyse how law interacts with technical and economic factors in shaping water policies, securing investments, and promoting sustainable resource use. Through an interdisciplinary approach, combining legal, technical, and economic perspectives, students will be equipped to propose institutional and regulatory solutions tailored to current challenges in water management. The course also addresses the coordination of public, private, and international actors in managing water resources efficiently and equitably.
Evaluation	50% Written assignment: Last session of the course, 50% Project work: The project work must be submitted 2 weeks after the end of the course

Course code and title	**SEEL-525 – *Climate Change Action***
Instructor	Dr Suzanna El Massah
Course format	2-week mission
Credits	3
Contact hours	20
Supervised Independent Work	10
Course description	The course will allow the students to understand, analyse and critically reflect on international law and policy on climate change, the challenges they pose and how they interact with other relevant spheres of policy and legal regulation, such as the economy, peace and security, human rights. The students will thereby acquire a synthetic view on the apprehension of the phenomenon of climate change, its causes and its consequences, which will allow them to appraise existing rules and action, shape new rules and action, and argue on opposing positions from states and other stakeholders in this respect. To this end, the course will, more specifically, allow the students to acquire the following capacities: • understand the basic scientific facts constituting the rationale for international climate change law, with particular attention for the UAE (1 course). • analyse and critically reflect on the legal and policy challenges posed by climate change, its causes and consequences, with particular attention for the UAE (1 course). • analyse and critically reflect on the main components of the international regime on climate change, based on the United Nations Framework Convention Against Climate Change (UNFCC) and on its future development. This will cover: i. An analytical historical overview of the UNFCC regime (1/2 course); ii. An analysis of the main features of the current system, in particular the issue of differentiation, nationally determined contributions, and the institutional and procedural framework for rulemaking and supervision (1/2 course); iii. Mitigation, flexibility mechanisms (Clean Development Mechanism, emissions trading, …) and geoengineering (1 course); iv. Adaptation, loss and damage and international financial and technical support (1 course). • analyse and critically reflect on the role of legal and policy regimes outside the UNFCC regime, their interaction with the UNFCC regime and the outcome for sustainable development, notably: i. the place of sovereign states in the context of climate change, in particular with respect to sea level rise, the exercise of extraterritorial jurisdiction, and the international responsibility of states with respect to climate change. ii. the role of economic law, notably trade law, investment law and the law of international maritime and aerial transportation. iii. the role of international human rights law and the law of international peace and security. These topics will wherever possible include a specific focus on the position of the UAE – either how the UAE are concerned with the causes and consequences of climate change, their position in international conferences and institutions, etc. At the end of the courses, students will be invited to participate in a moot international conference or a moot court hearing, to argue in favour of various positions, including that of the UAE, on the topic of the course.
Evaluation	During the course: 50% Written assignment on courses, 50% Moot court or diplomatic conference

Course code and title	**SEEL-526 – *Biodiversity Law***
Instructor	Dr Beatriz Garcia
Course format	1-week mission
Credits	3
Contact hours	10
Supervised Independent Work	5
Course description	Biodiversity law encompasses legal and policy frameworks designed to conserve and sustainably use biological diversity. This course explores the intersection of law, ecology, and conservation, focusing on national, regional, and international legal instruments and their implementation. The course examines specific legal regimes governing different facets of biodiversity, including the conservation of threatened species, marine biodiversity, and the protection of biodiversity in relation to natural and cultural heritage. This analysis involves examining national and international laws, policies, as well as judicial decisions by domestic and international tribunals. Moreover, the course explores the regulation of biodiversity within the context of the United Arab Emirates (UAE), and scrutinises the role of the government and organisations, including their current strategies, projects, and activities in the UAE.
Evaluation	50% Written assignment 1, 50% Written assignment 2

Course code and title	**SEEL-527 – *Legal Aspects of Food Security***
Instructor	Dr Nathalie Clarenc Bicudo
Course format	1-week mission
Credits	3
Contact hours	10
Supervised Independent Work	5
Course description	The legal approach of food security course delves into the multifaceted intersection between law and food security, aiming to equip Master 1 students with a comprehensive understanding of the legal frameworks, and challenges inherent in ensuring access to safe, nutritious, and sufficient food for all. This course offers a nuanced examination of the role of law in addressing food insecurity at international, regional, and national levels, emphasising critical analysis and engagement with contemporary issues in the field. Students will embark on an exploration of foundational concepts such as the right to food, international human rights law, and the legal frameworks governing food production, distribution, and consumption. The course will cover a wide range of topics, including the international legal instruments pertaining to food security, regional approaches to food governance, national legislation and policies, environmental law and sustainable food systems, trade law implications, food safety regulations, indigenous rights, and emerging challenges such as urbanisation and biotechnology. Special emphasis will be placed on understanding the complex interaction between law, policy, economics, and social justice in shaping food systems and access to food.
Evaluation	50% Written assignment: Last session of the course, 50% Project work: The project work must be submitted 2 weeks after the end of the course

Course code and title	**SEEL-528 – *Environmental Mobility***
Instructor	Dr Maia-Oumeima Hamrouni
Course format	1-week mission
Credits	4
Contact hours	10
Supervised Independent Work	5
Course description	The course provides an in-depth examination of the legal dimensions, challenges, and implications of human mobility driven by environmental factors. As the world grapples with escalating environmental crisis such as climate change, deforestation, and natural disasters, understanding the legal frameworks governing environmental mobility is of utmost importance for legal practitioners, policymakers, and scholars. This course offers a comprehensive exploration of various aspects related to environmental mobility, blending theoretical insights with practical applications. Students will delve into the intersection of environmental law, human rights law, and migration law to analyse the legal mechanisms and protections available to individuals and communities affected by environmental displacement.
Evaluation	50% Daily exercises: During the course, 50% Project work on a chosen aspect of Environment Mobility: The project work must be submitted 2 weeks after the end of the course

Course code and title	**SEEL-529 – *Project Management 2***
Instructor	Dr Mouad Lambarki
Course format	2 days
Credits	2
Contact hours	5
Course description	Projects are driven by change, and change is the only constant we have in today's rapidly evolving world. That is why understanding the principle of project management is essential for every engineer. This course will teach the fundamentals of the project management principles and give the ability to apply the project management approach to projects in a practical situation, by sharing project experiences from different real cases. Joint ventures in terms of their characteristics, reasons for their creation, how they are described in contracts, and the regulations on them in GCC, MENA and the UAE are expounded. The risk in projects is explained with examples of failure in projects, with the risks in international projects presented in terms of real cases and expounding and related legal issues that arise in international projects. Real case studies will be presented and analysed projects highlighting the cons and proms.
Evaluation	CA: 50% Project presentation, 50% Written report

Syllabi Courses

Master 2 Semester 1

Course code and title	**SEEL-531 – *Big Data and Artificial Intelligence for Environmental Engineering***
Instructor	Dr Haifa Ben Romdhane
Course format	2-week mission
Credits	8
Contact hours	15
Supervised Independent Work	15
Course description	This course introduces students to the principles, techniques, and applications of big data and artificial intelligence (AI) in the field of environmental engineering. Students will learn how to collect, process, analyse, and interpret large datasets related to environmental systems using AI techniques. Through lectures, case studies, and hands-on exercises, students will gain practical skills in utilising big data and AI to address environmental challenges and optimise engineering solutions. This course also aims to support students in geomatics (remote sensing and geographic information systems) associated with their personal projects (master's thesis in particular).
Evaluation	CA: 35% Assignment, 35% Final project presentations, 30% Final project report

Course code and title	**SEEL-532 – *Environmental Law and Human Rights***
Instructor	Prof Joel Adriantsimbazovina
Course format	1-week mission
Credits	4
Contact hours	10
Supervised Independent Work	5
Course description	The course presents the relationship between environmental law and human rights. It emphasises the importance of human rights in protecting the environment more effectively. After a general presentation of environmental human rights, the course looks at the right to a healthy environment and the procedural and substantive dimensions of environmental human rights.
Evaluation	50% Case note: Last session of the course, 50% Essay: The essay must be submitted 2 weeks after the end of the course

Course code and title	**SEEL-533 – *Environmental Litigation***
Instructor	Dr Julia Motte Baumvol
Course format	1-week mission
Credits	4
Contact hours	10
Supervised Independent Work	5
Course description	The objective of this course is to study how environmental law is shaped by litigation. Students will have a broad idea of environmental litigation, be it before national courts, international tribunals or supranational tribunals.
Evaluation	50% Written assignment: Last session of the course, 50% Project work: The project work must be submitted 2 weeks after the end of the course

Course code and title	**SEEL-534 – *Corporate, Environment and Social Responsibility***
Instructor	Prof Beatrice Parguel
Course format	2-week mission
Credits	4
Contact hours	10
Supervised Independent Work	5
Course description	The course is designed to develop leaders who are able to use their academic knowledge to analyse and understand concrete problematic situations that can influence the transition of companies and management towards responsible and sustainable organisations, i.e., to make them competent and responsible leaders.
Evaluation	50% Written assignment (open book): Last session of the course, 50% Project work: The project work must be submitted 2 weeks after the end of the course

Course code and title	**SEEL-535 – *Energy Transition: Strategies and Policies***
Instructor	Dr Evan Paleologos
Course format	1-week mission
Credits	4
Contact hours	20
Supervised Independent Work	10
Course description	The course presents a comprehensive overview of the modern issues related to an energy transition of the economy in the world and the UAE. The first component of the course material introduces the UN sustainability development goals (SDGs), the global outlook for renewable energy sources, and the UAE National Energy Strategy 2050. The second component of the course explains the main components of legislation and policies related to energy transition, around the world, in the GCC and in the UAE. The third component of the course concentrates on the generation of clean energy from water (hydroelectric dams), as well as the use of small hydropower systems by small or remote communities. The fourth component discusses solar and wind energy. The basics of solar photovoltaic (PV) cell and wind turbine operation are presented together with the mineral requirements and the supply chain vulnerabilities of the parts they consist of. An important topic involves the generation of energy from nuclear power, and the issue of radioactive waste disposal. The fifth component includes the new mineral landscape of the metals needed for clean energy technologies, their geographic distribution, the mining needs and environmental impacts of new mines. The energy and mineral requirements of electric vehicles and of electrical and electronic consumer equipment are discussed together with the status of their recycling and reuse. Finally, the sixth component of the course concludes with the topic of hydrogen as an energy source, highlighting the current and prospects of the UAE and other Gulf countries in the hydrogen energy sector.
Evaluation	CA: 30% Project presentation, 40% Project report, 30% In-class assessment

Course code and title	**SEEL-536 – *Research Methodology***
Instructor	Prof Kosmas Pavlopoulos and Dr Maia-Oumeima Hamrouni
Course format	During the first semester
Credits	6
Contact hours	15
Supervised Independent Work	5
Course description	This course provides postgraduate students with comprehensive methodological training essential for designing and conducting rigorous research within the field of environmental sustainability and related interdisciplinary domains. The course builds upon the theoretical knowledge and analytical competencies acquired throughout the programme, equipping students with the tools necessary to bridge the gap between academic theory and real-world application. It guides students in formulating relevant research questions, selecting appropriate methodologies, and developing coherent and feasible research proposals tailored to their specific academic interests and career aspirations. Structured around five thematic modules, the course offers an in-depth exploration of: 1. Interdisciplinary Research Approaches in Law and Geography 2. Spatial Data, Legal Mapping, and Environmental Indicators 3. Legal Empirics and Fieldwork in Sustainability Studies 4. Case-Based and Scenario-Driven Research Design 5. Writing and Communicating Interdisciplinary Research Students will develop critical reading and review skills through peer-to-peer feedback exercises and research proposal defences. Emphasis is placed on academic writing, citation standards, ethical research practices, and the ability to communicate research findings with clarity and academic rigour.
Evaluation	50% Written assignment, 50% Oral presentation

Master 2 Semester 2

Course code and title	**SEEL-540 – *Thesis***
Instructor	Several professors under the responsibility of the SEEL programme heads
Course format	-
Credits	30
Contact hours	-
Course description	The students will have to develop and present a research paper on a pre-approved topic. The master thesis is a document submitted for every master student for qualification presenting the author's research and findings in environmental topics. Presentation and defence are mandatory. Mentoring is continuing during the thesis. During their thesis a bi-monthly meetings for mentoring are mandatory to every student. Defence and presentation of the thesis is mandatory also under the examining committee. Turnitin checking for plagiarism applied. Each student will have 5 hours of individual supervision with their thesis supervisor.
Evaluation	Fall 2025: 50% Oral presentation, 50% Thesis

Permanent Academic and Administrative Staff

Head of Department: Dr Nicolas Catelan
Programme Directors: Prof Kosmas Pavlopoulos and Dr Maia-Oumeima Hamrouni
Academic Coordinator: Séverine Munoz

Position	Contact Details
Acting Head of Department	Dr Nicolas Catelan Ext. 9293 nicolas.catelan@sorbonne.ae
Programme Directors	Prof Kosmas Pavlopoulos Ext. 9207 Kosmas.Pavlopoulos@sorbonne.ae Dr Maia-Oumeima Hamrouni Ext. 9138 Maia.Hamrouni@sorbonne.ae
Academic Coordinator	Mrs Séverine Munoz Ext. 9288 Severine.munoz@sorbonne.ae
Student Affairs Acting Head of Department	Sylva Hardan Ext. 9749 sylva.hardan@sorbonne.ae
Sports Head of Department	Mrs Ellenita Merle Ext. 9364 Ellenita.Merle@sorbonne.ae
Sports Office	sports@sorbonne.ae +971 (0) 2 656 9356
Other Services - Female Student Residence	Ext. 9395
Other Services - Male Student Residence	Ext. 9394
Medical Clinic	Ext. 9621

SORBONNE UNIVERSITY ABU DHABI

Useful Contacts:
Head of Department - nicolas.catelan@sorbonne.ae
Academic Coordinator - Severine.munoz@sorbonne.ae