UNSW Course Outline

AGSM9162 Decarbonisation and Transition to Clean Energy (Virtual Weekly) - 2024

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General Course Information

Course Code : AGSM9162
Year : 2024
Term : Term 2
Teaching Period : T2
Is a multi-term course? : No
Faculty : UNSW Business School
Academic Unit : AGSM MBA Programs
Delivery Mode : Multimodal
Delivery Format : Standard
Delivery Location : Online - Synchronous
Campus : Sydney
Study Level : Postgraduate
Units of Credit : 6

Useful Links

Handbook Class Timetable

Course Details & Outcomes

Course Description

This course will help you understand the core concepts behind measuring and abating carbon

emissions in order to achieve the science-based targets and Net Zero emissions by 2050.

Clean energy will need to replace fossil fuels before 2050. McKinsey (2022) estimates this will cost an additional $3.5 trillion a year - the largest reallocation of capital in history - and will affect every country and every sector of the economy. The enormity and complexity of this challenge is creating strong and rapidly growing demand for leaders in every industry who understand the principles of decarbonisation and how an organisation can develop a realistic pathway to achieve Net Zero emissions. Regardless of the industry in which you are working, or your role in that industry, this course will help you to become a more valuable leader for your organisation and for society.

This course incorporates a Net Positive approach to decarbonisation, identifying the unprecedented opportunities for organisations and professionals to create value in a just transition to a decarbonised economy. The scale of these opportunities is evident in New South Wales, where the formal announcement of a Renewable Energy Zone in the Hunter Valley and Central Coast Region in 2022 attracted more than $100 billion worth of proposed projects.

Course Learning Outcomes

Course Learning Outcomes	Program learning outcomes
CLO1 : Discuss fundamental principles of Climate Science and Carbon Literacy	• PLO1 : Business Knowledge
CLO2 : Identify the global environmental, social and economic challenges of a just transition to clean energy	• PLO1 : Business Knowledge
CLO3 : Learn how to harness the value creation opportunities in decarbonisation	• PLO1 : Business Knowledge • PLO2 : Problem Solving
CLO4 : Identify the role of technology and innovation in decarbonisation and the transition to clean energy	• PLO1 : Business Knowledge
CLO5 : Critically evaluate case studies of global organisations that are leading the way in decarbonisation and a just transition to clean energy	• PLO1 : Business Knowledge • PLO2 : Problem Solving
CLO6 : Review industry decarbonisation pathways and understand the impact of different decarbonisation levers	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO5 : Responsible Business Practice
CLO7 : Analyse climate risk in different industries and understand how organisations can develop appropriate resilience and adaptation strategies	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO5 : Responsible Business Practice

Course Learning Outcomes	Assessment Item
CLO1 : Discuss fundamental principles of Climate Science and Carbon Literacy	• Class Participation • Case Study Analysis • Industry Analysis
CLO2 : Identify the global environmental, social and economic challenges of a just transition to clean energy	• Reflection on the World Climate Simulation • Class Participation • Case Study Analysis • Industry Analysis
CLO3 : Learn how to harness the value creation opportunities in decarbonisation	• Reflection on the World Climate Simulation • Class Participation • Case Study Analysis • Industry Analysis
CLO4 : Identify the role of technology and innovation in decarbonisation and the transition to clean energy	• Reflection on the World Climate Simulation • Class Participation • Case Study Analysis • Industry Analysis
CLO5 : Critically evaluate case studies of global organisations that are leading the way in decarbonisation and a just transition to clean energy	• Case Study Analysis
CLO6 : Review industry decarbonisation pathways and understand the impact of different decarbonisation levers	• Reflection on the World Climate Simulation • Industry Analysis
CLO7 : Analyse climate risk in different industries and understand how organisations can develop appropriate resilience and adaptation strategies	• Case Study Analysis • Industry Analysis

Learning and Teaching Technologies

Moodle - Learning Management System

Additional Course Information

Structure

Unit 1 The race to net zero

Unit 2 Policy and regulation for decarbonisation

Unit 3 Clean energy technologies

Unit 4 Financing net zero

Unit 5 Role of carbon markets

Unit 6 Transition of the electricity market

Unit 7 Industry

Unit 8 Decarbonising the transport sector

Unit 9 Agriculture

Unit 10 Buildings

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates	Program learning outcomes
Class Participation Assessment Format: Individual	10%	Due Date: In class in Weeks 1 to 10	• PLO1 : Business Knowledge
Reflection on the World Climate Simulation Assessment Format: Group	30%	Due Date: Tuesday of Week 9 by 3pm Sydney time	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO5 : Responsible Business Practice
Case Study Analysis Assessment Format: Individual	30%	Due Date: Monday of Week 7 by 3pm Sydney time	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO5 : Responsible Business Practice
Industry Analysis Assessment Format: Individual	30%	Due Date: Monday of Week 12 by 3pm Sydney time	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO5 : Responsible Business Practice

Assessment Details

Class Participation

Assessment Overview

Active participation in class discussion and activities.

Course Learning Outcomes

- CLO1 : Discuss fundamental principles of Climate Science and Carbon Literacy
- CLO2 : Identify the global environmental, social and economic challenges of a just transition to clean energy
- CLO3 : Learn how to harness the value creation opportunities in decarbonisation

- CLO4 : Identify the role of technology and innovation in decarbonisation and the transition to clean energy

Assessment Length

N/A

Reflection on the World Climate Simulation

Assessment Overview

Your team will reflect on your experience of the World Climate Simulation.

Course Learning Outcomes

- CLO2 : Identify the global environmental, social and economic challenges of a just transition to clean energy
- CLO3 : Learn how to harness the value creation opportunities in decarbonisation
- CLO4 : Identify the role of technology and innovation in decarbonisation and the transition to clean energy
- CLO6 : Review industry decarbonisation pathways and understand the impact of different decarbonisation levers

Assessment Length

1,000 words (plus appendix with supporting material - compulsory but not marked)

Case Study Analysis

Assessment Overview

This assessment requires you to submit your analysis of a case study.

Course Learning Outcomes

- CLO1 : Discuss fundamental principles of Climate Science and Carbon Literacy
- CLO2 : Identify the global environmental, social and economic challenges of a just transition to clean energy
- CLO3 : Learn how to harness the value creation opportunities in decarbonisation
- CLO4 : Identify the role of technology and innovation in decarbonisation and the transition to clean energy
- CLO5 : Critically evaluate case studies of global organisations that are leading the way in decarbonisation and a just transition to clean energy
- CLO7 : Analyse climate risk in different industries and understand how organisations can develop appropriate resilience and adaptation strategies

Assessment Length

5-minute video (narrated PowerPoint presentation) with one PowerPoint slide only

Industry Analysis

Assessment Overview

You will apply your learning throughout the course to analyse climate risk for a particular industry, understand and prioritise decarbonisation levers available to this industry, and identify critical resilience and adaptation strategies.

Course Learning Outcomes

- CLO1 : Discuss fundamental principles of Climate Science and Carbon Literacy
- CLO2 : Identify the global environmental, social and economic challenges of a just transition to clean energy
- CLO3 : Learn how to harness the value creation opportunities in decarbonisation
- CLO4 : Identify the role of technology and innovation in decarbonisation and the transition to clean energy
- CLO6 : Review industry decarbonisation pathways and understand the impact of different decarbonisation levers
- CLO7 : Analyse climate risk in different industries and understand how organisations can develop appropriate resilience and adaptation strategies

Assessment Length

2,000 words (plus appendix of no more than 1,000 words of supporting material - compulsory but not marked)

General Assessment Information

Grading Basis

Standard

Requirements to pass course

Students are expected to attempt all assessment requirements, and must achieve a composite mark of at least 50 out of 100 to pass the course.

Students are also expected to actively engage in course learning activities. Failure to engage in assessment tasks that are integrated into learning activities (e.g. class discussion, presentations) will be reflected in the marks for these assessable activities.

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 27 May - 2 June	Topic	The race to net zero
	Assessment	Assessment 1: Class participation
Week 2 : 3 June - 9 June	Topic	Policy and regulation for decarbonisation
	Assessment	Assessment 1: Class participation
Week 3 : 10 June - 16 June	Topic	Clean energy technologies
	Assessment	Assessment 1: Class participation
Week 4 : 17 June - 23 June	Topic	Financing net zero
	Assessment	Assessment 1: Class participation
Week 5 : 24 June - 30 June	Topic	Role of carbon markets
	Assessment	Assessment 1: Class participation
Week 6 : 1 July - 7 July	Topic	Transition of the electricity market
	Assessment	Assessment 1: Class participation
Week 7 : 8 July - 14 July	Topic	Industry
	Assessment	Assessment 1: Class participation Assessment 3: Case study analysis due on Monday by 3pm Sydney time
Week 8 : 15 July - 21 July	Topic	Decarbonising the transport sector
	Assessment	Assessment 1: Class participation
Week 9 : 22 July - 28 July	Topic	Agriculture
	Assessment	Assessment 1: Class participation Assessment 2: Reflection on World Climate Simulation due on Tuesday by 3pm Sydney time
Week 10 : 29 July - 4 August	Topic	Buildings
	Assessment	Assessment 1: Class participation
Week 11 : 5 August - 11 August	Other	Independent study
Week 12 : 12 August - 18 August	Assessment	Assessment 4: Industry analysis due on Monday by 3pm Sydney time

Attendance Requirements

Students must have a reliable internet connection and a working laptop/computer with camera, and attend the scheduled 90-minute online classes in Weeks 1 to 10. There are also other required online asynchronous activities outside of class times.

Course Resources

Prescribed Resources

You have three major resources to help you learn:

1. The course materials, which you will access via your Moodle class.
2. Your interaction with your facilitators. The facilitators' job is to guide your learning by conducting the class discussion, answering questions that might arise after you have done the week's work, providing insights from their practical experience and understanding of theory, providing you with feedback on your assessments, and directing discussions and debates that

will occur between you and your co-participants in the course.
3. Your co-participants. Your class colleagues are an invaluable potential source of learning for you. Their work and life, and their willingness to question and argue with the course materials, the facilitator and your views, represent a great learning opportunity. They bring much valuable insight to the learning experience.

Other Resources

BusinessThink is UNSWs free, online business publication. It is a platform for business research, analysis and opinion. If you would like to subscribe to BusinessThink and receive the free monthly e-newsletter with the latest in research, opinion and business then go to the BusinessThink website.

Course Evaluation and Development

This course is being offered for the first time in Term 2 2024.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Facilitator in charge	Rahman Daiyan					No	Yes

Other Useful Information

Academic Information

COURSE POLICIES AND SUPPORT

The Business School expects that you are familiar with the contents of this course outline and the UNSW and Business School learning expectations, rules, policies and support services as listed below:

- Program Learning Outcomes
- Academic Integrity and Plagiarism
- Student Responsibilities and Conduct
- Special Consideration
- Protocol for Viewing Final Exam Scripts
- Student Learning Support Services

Further information is provided on the key policies and support page.

Students may not circulate or post online any course materials such as handouts, exams, syllabi or similar resources from their courses without the written permission of their instructor.

STUDENT LEARNING OUTCOMES

The Course Learning Outcomes (CLOs) – under the Outcomes tab – are what you should be able to demonstrate by the end of this course, if you participate fully in learning activities and successfully complete the assessment items.

CLOs also contribute to your achievement of the Program Learning Outcomes (PLOs), which are developed across the duration of a program. PLOs are, in turn, directly linked to UNSW graduate capabilities. More information on Coursework PLOs is available on the key policies and support page. For PG Research PLOs, including MPDBS, please refer to the UNSW HDR Learning Outcomes.

Academic Honesty and Plagarism

As a student at UNSW you are expected to display academic integrity in your work and interactions. Where a student breaches the UNSW Student Code with respect to academic integrity, the University may take disciplinary action under the Student Misconduct Procedure. To assure academic integrity, you may be required to demonstrate reasoning, research and the process of constructing work submitted for assessment.

To assist you in understanding what academic integrity means, and how to ensure that you do comply with the UNSW Student Code, it is strongly recommended that you complete the Working with Academic Integrity module before submitting your first assessment task. It is a free, online self-paced Moodle module that should take about one hour to complete.

Submission of Assessment Tasks

SPECIAL CONSIDERATION

You can apply for special consideration when illness or other circumstances beyond your control interfere with your performance in a specific assessment task or tasks, including online exams. Students studying remotely who have exams scheduled between 10pm and 7am local time, are also able to apply for special consideration to sit a supplementary exam at a time outside of

these hours.

Special consideration is primarily intended to provide you with an extra opportunity to demonstrate the level of performance of which you are capable. To apply, and for further information, see Special Consideration on the UNSW Current Students page.

Special consideration applications will be assessed centrally by the Case Review Team, who will update the online application with the outcome and add any relevant comments. The change to the status of the application immediately sends an email to the student and to the assessor with the outcome of the application.

Please note the following:

1. Applications can only be made through Online Services in myUNSW (see the UNSW Current Students page). Applications will not be accepted by teaching staff. The lecturer-in-charge/ course coordinator will be automatically notified when your application is processed.
2. Applying for special consideration does not automatically mean that you will be granted a supplementary exam or other concession.
3. If you experience illness or misadventure in the lead up to an exam or assessment, you must submit an application for special consideration, either prior to the examination taking place, or prior to the assessment submission deadline, except where illness or misadventure prevent you from doing so.
4. If your circumstances stop you from applying before your exam or assessment due date, you must apply within 3 working days of the assessment or the period covered by your supporting documentation.
5. Under the UNSW Fit To Sit/Submit rule, if you sit the exam/submit an assignment, you are declaring yourself well enough to do so and are cannot subsequently apply for special consideration.
6. If you become unwell on the day of – or during – an exam, you must stop working on your exam, advise your course coordinator or tutor and provide a medical certificate dated within 24 hours of the exam, with your special consideration application. For online exams, you must contact your course coordinator or tutor immediately via email, Moodle or chat and advise them you are unwell and submit screenshots of your conversation along with your medical certificate and application.
7. Special consideration requests do not allow the awarding of additional marks to students.

Further information on Business School policy and procedure can be found under “Special Consideration” on the key policies and support page.

LATE SUBMISSION PENALTIES

For assessments other than examinations, late submission will incur a penalty of 5% per day or part thereof (including weekends) from the due date and time. An assessment will not be accepted after 5 days (120 hours) of the original deadline unless special consideration has been approved. An assignment is considered late if the requested format, such as hard copy or electronic copy, has not been submitted on time or where the 'wrong' assignment has been submitted.

For assessments which account for 10% or less of the overall course grade, and where answers are immediately discussed or debriefed, the LIC may stipulate a different penalty. Details of such late penalties will be available on the course Moodle page.

FEEDBACK ON YOUR ASSESSMENT TASK PERFORMANCE

Feedback on student performance from formative and summative assessment tasks will be provided to students in a timely manner. Assessment tasks completed within the teaching period of a course, other than a final assessment, will be assessed and students provided with feedback, with or without a provisional result, within 10 working days of submission, under normal circumstances. Feedback on continuous assessment tasks (e.g. laboratory and studio-based, workplace-based, weekly quizzes) will be provided prior to the midpoint of the course.

Faculty-specific Information

PROTOCOL FOR VIEWING FINAL EXAM SCRIPTS

UNSW students have the right to view their final exam scripts, subject to a small number of very specific exemptions. The UNSW Business School has set a protocol under which students may view their final exam script. Individual schools within the Faculty may also set up additional local processes for viewing final exam scripts, so it is important that you check with your School.

If you are completing courses from the following schools, please note the additional school-specific information:

- Students in the **School of Accounting, Auditing & Taxation** who wish to view their final examination script should also refer to this page.
- Students in the **School of Banking & Finance** should also refer to this page.
- Students in the **School of Information Systems & Technology Management** should also refer to this page.

COURSE EVALUATION AND DEVELOPMENT

Feedback is regularly sought from students and continual improvements are made based on this feedback. At the end of this course, you will be asked to complete the myExperience survey, which provides a key source of student evaluative feedback. Your input into this quality enhancement process is extremely valuable in assisting us to meet the needs of our students and provide an effective and enriching learning experience. The results of all surveys are carefully considered and do lead to action towards enhancing educational quality.

QUALITY ASSURANCE

The Business School is actively monitoring student learning and quality of the student experience in all its programs. A random selection of completed assessment tasks may be used for quality assurance, such as to determine the extent to which program learning goals are being achieved. The information is required for accreditation purposes, and aggregated findings will be used to inform changes aimed at improving the quality of Business School programs. All material used for such processes will be treated as confidential.

TEACHING TIMES AND LOCATIONS

Please note that teaching times and locations are subject to change. Students are strongly advised to refer to the Class Timetable website for the most up-to-date teaching times and locations.