

Course Information				
Year	AY 2025-2026	School	UNU-IAS	
Course Title	Climate Change Mitigation through the Measurement, Reporting and Verification (MRV) of Greenhouse Gas Emissions			
Instructor & Contact Information	Mahesti Okitasari, Naoyuki Okano (okitasari@unu.edu , okano@unu.edu)			
Term/Day/Period	AY 2026 Spring / 20 Apr – 13 Jul 2026 / 3 rd period *Please find detailed schedule at “Course Outline” on P2.			
Category	Elective course	Eligible Year	1 st year and above	Credits 2
Classroom	Lecture room, 6th floor in the UNU building	Campus	UNU-HQ, Tokyo, Japan	
Main Language	English			
Class Modality Categories	On-Campus and online (Please check below and “Requirements” on p. 2) Please note that students currently enrolled at UNU-IAS and partner universities are required to attend the course in person. For non-degree students, on-site attendance is preferred, however, online participation will also be available. For those attending online from remote areas and thus unable to participate in the site visit (Lecture 14), a substitute assignment will be arranged.			
Course Code	641010			
Level	Graduate-level	Types of lesson	Lecture	

Syllabus Information	
Subtitle	Practicum on the Implementation of the Paris Agreement
Course Description	<p>“Transparency” is regarded as a vital element to ensure the Paris Agreement functions as a vehicle through which government parties can provide information on their climate action commitments with being reviewed by external experts. Under Article 13 of the Paris Agreement, Parties are responsible for reporting on regular data on countries’ GHG emissions and removals, progress of the implementation of their nationally determined contributions (NDCs), climate change impacts and adaptation and levels of support and capacity-building through specific reports and tables. The concept of “transparency” can be found in many areas of practitioners’ work on climate action, and often, they are not explained how they differ from and relate to each other. As to measurement, report, and verification (MRV) of GHG emissions and removals, which are often used synonym for transparency, there are different sets of rules operated in layers, which are relevant to each other, i.e., international, national, sector, entity or facility-level, as well as project level.</p> <p>The course is provided by lectures by professionals and practitioners in the field, hands-on training of GHG emissions calculation and reporting applying relevant methodologies, and site visits to observe actual efforts by the private sector to reduce GHG emissions through the installation of decarbonization technologies and their MRV.</p>
Objectives and Learning Goals	<ul style="list-style-type: none"> Develop an understanding of how multilayered MRVs facilitate climate action among multiple stakeholders in support of the Paris Agreement implementation. Learn about theory and practices of transparency at the national level, including policy measures, support and finance as well as methodological aspects of GHG inventory (e.g., data collection procedures sourced from national statistics in line with the Intergovernmental Panel on Climate Change (IPCC) guidelines), referring to the modalities, procedures and guidelines (MPGs) of the Enhanced Transparency Framework (ETF) under the Paris Agreement. Examine GHG emissions and climate action at the entity or facility level, including policy measures, support and finance as well as methodological aspects of GHG inventory (e.g., scopes and data collection procedures, incl. measurement and estimation) referring to requirements by standards (e.g., ISO and GHG

	<p><i>protocol), legislations (e.g., emission trading schemes) as well as initiatives (e.g., SBTi, TCFD).</i></p> <ul style="list-style-type: none"> • <i>Develop the capacity to integrate information and knowledge gained through lectures and hands-on practices on transparency and GHG MRV, and to formulate strategies to enhance and lead climate actions at various levels.</i> 																																																																
Requirements	<p>The course requires students to attend all classes, to arrive on time, to complete readings and to participate actively in class discussions. This means asking questions and sharing knowledge in every class. At the discretion of the instructor, frequent late arrivals or absences may result in a lower grade.</p> <p>Please note that students currently enrolled at UNU-IAS and partner universities are required to attend the course in person. For non-degree students, on-site attendance is preferred, however, online participation will also be available. For those attending online from remote areas and thus unable to participate in the site visit (Lecture 14), a substitute assignment will be arranged.</p> <p>Please note that the first session is of particular importance and cannot be missed. Students are also strongly encouraged to regularly follow the latest news on climate change and sustainable development issues, as these topics will be frequently discussed in class. Relevant reporting archives will be shared by the instructor during the class. The expected working hours per week are five hours, including pre-readings, lecture attendance, and review for assignments.</p>																																																																
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