

Sustainability and Innovation in Agriculture and Food: From farm to fork

▪ Course Introduction

This course aims to raise awareness of sustainable food production, transportation, and selecting responsible food suppliers. The course also explores technological advances in agriculture that can contribute to de-carbonisation and maximising the contribution of farmland. The course is designed for professionals in the F&B industry, quality control, engineering and agriculture, and those who are interested in sustainability solutions for food and food waste reduction. Each course session is delivered by an instructor from CESL Asia in Macau with one or more speakers from Monte do Pasto in Alentejo, Portugal, who will be sharing online, or other invited speakers by CESL Asia.

***Application to CAEU in progress, applying for 6 hours of multi-disciplinary CPD and 2 hours of E&M/ E&E CPD.*

▪ Course Schedule and Details

Dates	Time (GMT+8)	Topic(s)	Medium of instruction	Delivery of mode	Venue
2024-05-16	Thur 19:00 – 21:00	Module 1	English	Face-to-Face lecture	University of Saint Joseph (Ilha Verde Campus) <i>Classroom information will be provided before the class starts via E-mail notification</i>
2024-05-23	Thur 19:00 – 21:00	Module 2			
2024-05-30	Thur 19:00 – 21:00	Module 3			
2024-06-06	Thur 19:00 – 21:00	Module 4			

▪ **Modules Descriptions**

Module	Descriptions	Instructor/Moderator	Invited Speaker
Module 1	<p>Sustainability and Innovation in Agrifoods</p> <ul style="list-style-type: none"> • The Great Global Agrifoods Challenge: Feeding 10 B people in 2050 • The Road to Sustainable Agrifoods Systems: Europe as a best practice • Innovation and Technology for Agrifoods Sustainability 	Eng. Redfield Cheong, CFA	Pedro Horta Monte de Pasto
Module 2	<p>Sustainable Livestock Production, Animal Welfare and Technology</p> <ul style="list-style-type: none"> • Sustainable Livestock Production and Management • Animal Welfare and implications on Climate Change, Environment, Health and Beef Quality • Animal Welfare international certifications and legislation • Modern and innovative methods/technologies for the increase of animal welfare in animal husbandry and beef quality 	Eng. Redfield Cheong, CFA	Dr. Ana Geraldo Monte de Pasto
Module 3	<p>Growing Sustainable Meat Systems from Farm to Fork</p> <ul style="list-style-type: none"> • Defining Sustainable Meat Production System • Making the Meat Value Chain Sustainable – The Role of Producers, Retailers and Consumers • Effective Food Waste Prevention in the Food Chain 	Eng. Redfield Cheong, CFA	Dr. Ana Geraldo Monte de Pasto
Module 4	<p>Agrivoltaics – Double Use of land for food and energy security as well as social and economic development</p>	Eng. Redfield Cheong, CFA	Eng. Miguel Santos

- **Biography of Lecturers:**

Eng. Redfield Cheong Tat Hong, CFA

Eng. Redfield Cheong Tat Hong, CFA, is a distinguished professional with a diverse educational background and a wealth of experience. He holds a Master of Business Administration from the University of Saint Joseph, Macau (2017-2019), a Master of Mechanical and Electrical Engineering (2011-2014), and a Bachelor of Mechanical and Electrical Engineering (2002-2006) from the University of Macau. Additionally, he has been a registered electrical and mechanical engineer in Macau since 2007 and earned the prestigious Chartered Financial Analyst designation from the CFA Institute in 2023. Eng. Cheong is actively involved in various professional associations, serving as Advisor for the Salesian Secondary School Alumni Association of Macau since 2019, Associate Treasurer for the St. Joseph's University Alumni Association since 2020, and Director for the Macau Institution of Engineers since 2015.

As Manager of the Business Development Department at CESL Asia Group, Eng Cheong leads efforts to expand the group's business, focusing on overseas investment, financial analysis, and project evaluation. His extensive practical experience includes participation in key investment projects such as new energy projects in Southern Portugal and sustainable agriculture initiatives in Portugal's main agricultural region, Alentejo. Prior to his current position, Eng. Cheong gained valuable insights working in a renowned industrial laundry factory in Macau, where he honed his expertise in production and operations, particularly in environmental protection, energy conservation, and sustainability.

Eng. Miguel Almeida Santos

Eng. Miguel Santos, a graduate of Instituto Superior Técnico in Lisbon, holds registrations as a Mechanical Engineer with DSSCU in Macau and is a member of Ordem dos Engenheiros in Portugal.

With over 27 years of professional experience in engineering, Miguel Santos serves as Senior Manager at CESL Asia Group. His expertise encompasses a range of notable projects, including the inspection, construction supervision, T&C and O&M of Concentrated Photovoltaic (CPV) Solar Plants in southern Portugal, as well as construction supervision of PV Plants in the Canary Islands, Spain.

Miguel Santos also contributed to the Macau Peninsula Wastewater Treatment Plant Upgrade, Operation and Maintenance Project, as well as numerous projects of water and wastewater treatment plants, pumping systems and pipelines in Portugal, Angola, Morocco and Libya. He also has experience on construction supervision of recycled waste sorting plants and urban waste incineration plants, as well as on audit of environmental facilities.

Dr. Ana Carina Geraldo

Dr. Geraldo started her academic career in Animal Science at the University of Évora (UÉ), where she graduated with a Master's degree in Zootechnics in 2005, and in 2009 she started a PhD in Science - Animal Quality and Productivity at the University of São Paulo (Brazil). Between 2006 and 2015, she worked in the field for different agricultural companies. In 2016, she joined the commercial team of a retail company as Category Manager in the meat sector. Between 2019 and mid-2022, she was responsible for the quality department of a meat trading company, when she joined the Monte do Pasto team as technical director. During her career as a researcher, she has published extensively in the field of bioclimatology and animal welfare. She has been a guest lecturer at the UÉ Zootechnics Department since 2017. She evaluates applications for European-funded projects as a guest evaluator for the European Commission (Research Executive Agency).

Pedro Alexandre Horta

Pedro holds a Master's Degree in Zootechnical Engineering from the University of Évora, Portugal (2013), specialising in animal production systems and farm business management. He has over eight years of hands-on experience at Monte do Pasto, progressing from roles in animal production, feed manufacturing, sustainability and innovation projects to Chief Operating Officer. Pedro's expertise encompasses animal stock optimisation, sustainable livestock breeding systems, animal feed production, and livestock supply chain and export operations.

Last updated: 26 April 2024