Dr. Saad Jasim, P.Eng

President of the International Ozone Association, former acting research director at QEERI and Joint professor at HBKU (Qatar Foundation), President, SJ Environmental Consultants (Windsor) Inc. Served as Director, Great Lakes Regional Office-International Joint Commission (IJC), Canada and USA. Founding CEO for the Walkerton Clean Water Centre following the outbreak tragedy. Introduced Ozone as primary disinfectant to the City of Windsor in 2001. Designed a water reuse system for Green House operation in Canada. Adjunct Professor at the University of Windsor, Canada.

Syllabus	**C2: Water Reuse, a Solution to Water Scarcity and Sustainability**	
Courses description	***Week 1***	*Climate Change and Water Scarcity*
Weekly Schedule of Course	***Week 2***	*Water Security and Sustainability*
Topics and Out of Class	***Week 3***	*Basics and types of Water Reuse*
Assignments	***Week 4***	*Guidelines for Water Reuse*
	Week 5	*Requirements for Disinfection*
	Week 6	*Advanced Technologies in Water Treatment* *Ozone, Membranes, UV, etc.*
	Week 7	*Advanced Oxidation Processes (AOPs)*
	Week 8	*Water Quality Objectives for Water Reuse*
	Week 9	*Groundwater Recharge for Reuse*
	Week 10	*Chemicals of Emerging Concern*
	Week 11	*Optimization of Water Treatment Processes*
	Week 12	*Case Studies of Implementing Advanced Technologies*
	Week 13	*Reuse of Treated Sewage Effluent, challenges and advantages*
	Week 14	*Environmental health and safety*
Delivery & Duration	*Online Classes | 1meeting per week, 2 hour each*	
Who this programme is for	*Graduate students (Bachelor, Master, Ing. , PhD)*	
Course Certificate of Completion	*Upon completion of a course, and once the participation has been verified, the candidate will receive an electronic certificate to download, print, and keep in his records / Signed by the VLU/**Dr. Saad Jasim, P.Eng***	
Media Tools	*Virtual courses / Zoom management by Sabaek for Education & Training (Bahrain)*	
Student Learning Outcomes (SLOs)	*Identify, address, and be able to resolve water quality and water reuse importance and challenges* *Evaluate a research paper and efficiently identify the main points.* *Identify a relevant research question and formulate a hypothesis.* *Discuss the effects of Advanced Water Treatment Technologies to resolve water reuse quality problems* *Develop reports and presentations to scientifically convey research results* *Assess and optimize water treatment processes to achieve quality targets* *Summarize the needs for water reuse, and develop the required water quality criteria from these needs* *Design systems to achieve disinfection requirements for different disinfectants, water quality, and system designs*	
Learn Outcome	***Learning Outcomes – the graduate can:*** *Apply knowledge and skills to multi-disciplinary aspects of environmental sustainability.* *Develop products/solutions for environmental sustainability providing economic, social and technological impact.* *Analyze, interpret, and communicate findings from a research project related to environmental sustainability to relevant audiences.* *Independently analyze complex environmental research problems, addressing multi-disciplinary facets.* *Collaborate with researchers/scientists and other professionals from industry and government, exhibiting the attributes leadership, social consciousness, integrity and professionalism.*	
Application Deadline	*Send an e-mail to info@vluplatform.net to receive zoom invitation*	