

Scenario Video Script

Client	ABET
Course title	The ABET Microcredential in Sustainability
Video code	ABETSIS_C1_M1_V1
Video title	What Is Sustainability?
Word count	462
Duration	Approx. 4
Presenter	Animation with voice-over

Learning Outcomes
Please add the learning outcomes this script needs to achieve. Please link the course blueprint .

Presenter Notes
Please check pronunciation of “ Øresund ”

Production Notes

Script	Visuals
Consider Øresund Bridge, a marvel of engineering that connects Denmark and Sweden. This bridge exemplifies sustainable development in action. Does it fulfill the present needs of improving connectivity and economic interaction between these two countries? Check. Does it do so without compromising future generations' ability to sustain these benefits? To a large extent. How did this project consider the needs of future generations?	Aerial shots of the Øresund Bridge, highlighting its design and the surrounding natural environment.

<p>To improve quality of life, it established green corridors to support biodiversity and implemented noise reduction measures to minimize disturbance to local communities. Also, it focused on enhancing public transportation systems to reduce carbon emissions and promote sustainable commuting between Denmark and Sweden. So, it is more than just a structure carrying a roadway over the sea. And this is how we can define sustainability: When a project meets the needs of the present without compromising the ability of future generations to meet their own needs.</p>	<p>scenes of green corridors, noise barriers, and busy, yet efficient public transport systems on and around the bridge.</p>
<p>Sustainability in STEM goes beyond minimizing environmental impact. It integrates ethical considerations into practice, focusing on economic durability, ecological viability, and social equitability. This holistic approach is essential for creating a quality of life for both current and future generations.</p>	<p>Graphics illustrating the three pillars of sustainability (economic, ecological, social) with examples from engineering projects.</p>
<p>The World Federation of Engineering Organization and accreditation bodies like ABET, which is a member of the Washington Accord, emphasize the critical role of sustainability in STEM ethics and education. This ensures STEM professionals contribute positively to society, the environment, and the economy.</p>	<p>Logos of WFEO and the Washington Accord, with a backdrop of diverse engineering projects around the world.</p>
<p>The journey towards sustainability has evolved, from the Brundtland Report's initial definition to a global acceptance of collective action from all sectors of society. This shift underscores the need for sustainable development to be integrated at all levels.</p>	<p>Timeline graphics showing key milestones in sustainability development, with icons representing the Brundtland Report, Earth Summit, and more.</p>
<p>Yet, the Øresund Bridge, while a step in the right direction, reminds us of sustainability's complexities. It missed opportunities, like creating cycling lanes despite lobbying groups in both countries pleading for them. Compare that to the Gordie Howe bridge project which did allow for pedestrian and bicycle traffic. This demonstrates the continuous need for improvement and innovation in sustainable engineering. Also, this illustrates the value of using a formal rating system to judge the sustainability of projects like these.</p>	<p>Footage of the bridge, juxtaposed with animated graphics showing potential improvements, like cycling lanes.</p>
<p>Sustainability is no longer a "nice-to-have" but a must-have in STEM education and practice. STEM professionals are tasked with implementing solutions that consider social, economic, and environmental impacts, today and in the future.</p>	<p>Classroom scenes, workshops, and engineering professionals working on sustainable projects, with an emphasis on collaborative discussions.</p>
<p>This shift requires a new mindset among STEM professionals. They must ask how their work impacts communities and ecosystems and aligns with global sustainable development</p>	<p>Close-up shots of engineers in thought, sketches of sustainable</p>

goals. It's about ensuring engineering practices contribute to a more sustainable and equitable world.	projects, and visuals of global sustainable development goals.
Sustainability in STEM is not just an evolution within these fields; it's crucial for addressing the complex challenges of our time. Through innovation and commitment to ethical practices, STEM professionals play a critical role in shaping a sustainable future for all.	Montage of sustainable projects around the world, ending with a hopeful sunrise over the Earth, symbolizing a sustainable future.

Source attribution:

Anderberg, S., & Clark, E. (2013). Green and sustainable Øresund region: Eco-branding Copenhagen and Malmö. In I. Vojnovic (Ed.), *Urban sustainability: A global perspective* (pp. 591–610). Michigan State University Press.

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