17.4.4 AASTMT's Role in Promoting Sustainable Literacy

2024–2025

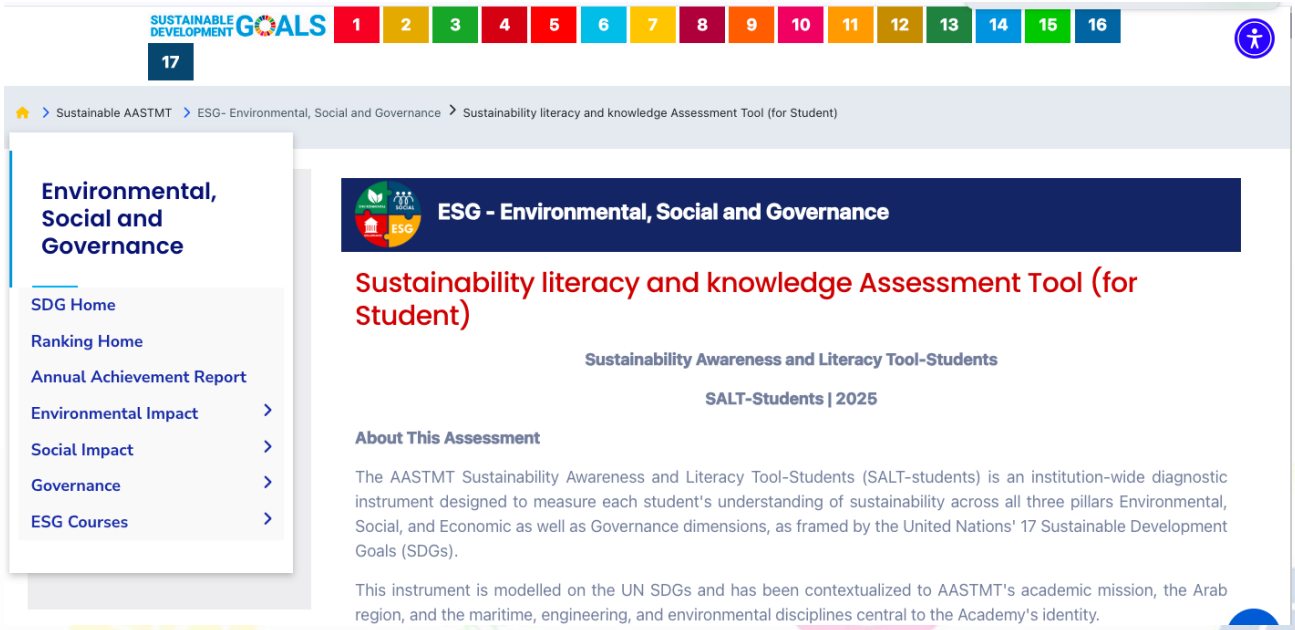
During the 2024–2025 reporting cycle, the Arab Academy for Science, Technology and Maritime Transport (AASTMT) promoted and assessed student sustainability literacy through institution-wide assessment and the integration of sustainability competencies into engineering education. These efforts include the Sustainability Awareness and Literacy Tool for Students (SALT-Students), which evaluates students' understanding of sustainability, and the alignment of ABET student learning outcomes with the United Nations Sustainable Development Goals (SDGs). Together, these approaches support the assessment of students' sustainability knowledge and their ability to consider environmental, social, ethical, and economic dimensions in academic and practical contexts.

Sustainability literacy and knowledge Assessment Tool (for Student)

The AASTMT Sustainability Awareness and Literacy Tool-Students (SALT-Students) is an institution-wide diagnostic instrument designed to measure each student's understanding of sustainability across the Environmental, Social, and Economic pillars, as well as Governance dimensions, as framed by the UN's 17 SDGs. The instrument is modelled on the UN SDGs and contextualized to AASTMT's academic mission, the Arab region, and maritime, engineering, and environmental disciplines central to the Academy's identity.

All undergraduate and postgraduate students are required to complete the assessment at least once during their programme. It covers environmental sustainability, social sustainability, economic sustainability and responsible production, governance, peace and partnerships, systems thinking and cross-cutting competencies, as well as attitudes, values and commitment.

During October–November 2025, 9,531 students completed the SALT-Students assessment, including 7,083 undergraduate and 2,448 postgraduate students. The combined institutional mean score was 57.1%, with undergraduate students achieving 54% and postgraduate students 66.3%. Individual student scores remain confidential, while aggregated results inform institutional planning, SDG integration tracking, and AASTMT's Sustainability Report.



Assessment Structure & Scoring Framework

Thematic Band	SDGs Covered	No. of Questions	% of Score
Environmental Sustainability	SDG 6, 7, 12, 13, 14, 15	12	24%
Social Sustainability	SDG 1, 2, 3, 4, 5, 10, 11	10	20%
Economic Sustainability	SDG 8, 9, 12	7	14%
Governance & Institutions	SDG 16, 17	5	10%
Systems Thinking & Action	All 17 SDGs (cross-cutting)	8	16%
Attitudes & Commitment (self-assess)	All	8	16%

Sustainability literacy and knowledge Assessment Tool (for Student)

AASTMT_SALT_Students_Statistical_Report_2025

ABET–SDG Mapping of Learning Outcomes

AASTMT incorporates sustainability competencies into its engineering education through the alignment of ABET student learning outcomes with the United Nations Sustainable Development Goals (SDGs). The mapping framework translates broad sustainability principles into specific academic competencies, enabling students to demonstrate their ability to consider environmental, social and ethical dimensions when addressing engineering challenges. It connects learning outcomes related to engineering design, ethical responsibility, effective communication, teamwork and lifelong learning with SDGs 3, 4, 5, 6, 7, 9, 10, 12, 13, 14, 15 and 17. Through this alignment, students are evaluated not only on their technical knowledge but also on their ability to recognize the wider implications of engineering decisions, incorporate sustainability considerations into design solutions and apply responsible professional practices.

✨ ABET Outcomes vs SDGs Mapping Table

ABET Outcome	Mapped SDGs
Outcome 2 (Design)	SDG 3 – Good Health and Well-Being, SDG 6 – Clean Water and Sanitation, SDG 7 – Affordable and Clean Energy, SDG 9 – Industry, Innovation and Infrastructure, SDG 11 – Sustainable Cities and Communities, SDG 12 – Responsible Consumption and Production, SDG 13 – Climate Action, SDG 14 – Life Below Water, SDG 15 – Life on Land
Outcome 4 (Ethics)	SDG 4 – Quality Education, SDG 5 – Gender Equality, SDG 8 – Decent Work and Economic Growth, SDG 10 – Reduced Inequalities, SDG 16 – Peace, Justice and Strong Institutions, SDG 17 – Partnerships for the Goals
Outcome 3 (Communication)	SDG 1 – No Poverty, SDG 2 – Zero Hunger, SDG 4 – Quality Education, SDG 5 – Gender Equality, SDG 6 – Clean Water and Sanitation, SDG 10 – Reduced Inequalities, SDG 14 – Life Below Water, SDG 16 – Peace, Justice and Strong Institutions, SDG 17 – Partnerships for the Goals
Outcome 5 (Teamwork)	SDG 5 – Gender Equality, SDG 6 – Clean Water and Sanitation, SDG 8 – Decent Work and Economic Growth, SDG 9 – Industry, Innovation and Infrastructure, SDG 10 – Reduced Inequalities, SDG 15 – Life on Land, SDG 16 – Peace, Justice and Strong Institutions, SDG 17 – Partnerships for the Goals
Outcome 7 (Lifelong Learning)	SDG 4 – Quality Education, SDG 6 – Clean Water and Sanitation, SDG 8 – Decent Work and Economic Growth, SDG 9 – Industry, Innovation and Infrastructure, SDG 12 – Responsible Consumption and Production, SDG 13 – Climate Action, SDG 14 – Life Below Water, SDG 15 – Life on Land, SDG 17 – Partnerships for the Goals

ABET–SDG Mapping of Learning Outcomes