



THE UNIVERSITY OF TEXAS
AT ARLINGTON

INCLUSIVE ASSESSMENT AND SUSTAINABLE DEVELOPMENT



Kendra L. Wallis
The University of Texas at Arlington, Arlington, Texas

ASSESSMENT (GRADING)

TRADITIONAL GRADING

Does not Advance the Goal of Education
Ranking not Grading



- Time consuming – rubrics, partial credit
- 70% is ambiguous
- Faculty – student conflict
- Student – student competition
- Normal curve – random, independent
- Mental health, stress, anxiety
- Encourages cheating
- Game to earn maximum points with minimum effort

ALTERNATIVE ASSESSMENTS

Criteria for Ideal Assessment System

- Upholds high academic standards
- Reflects student learning outcomes
- Motivates students to learn and excel
- Reduces student stress
- Students responsible for their grades
- Saves faculty time
- Discourages cheating

INCLUSIVE ASSESSMENT METHODS

Inclusive by reducing barriers faced by URM students

Formative assessments

- Based on Growth Mindset
- Allow failure
- Provide useful feedback
- Allow resubmission
- Pass/fail



Examples

- Specifications Grading
- Mastery-based Grading
- Standards-based Assessment
- Ungrading

E
EXCELLENT
EXCEEDS EXPECTATIONS

M
MEETS
EXPECTATIONS

N
NOT YET
NEEDS REVISION

U
UNMEASURABLE
UNACCEPTABLE OR
MISSING

EMNU (on the Left)

Work assessed in pass/fail without points
Limited resubmission is allowed (tokens)

Rubrics may have set requirements:

- Minimum 3 pages; maximum 5 pages
- 10 peer-reviewed sources per review
- Submit on Canvas before deadline

Beneficial Feedback

- Constructive & Specific – identify strengths & weaknesses to improve
- Timely – before student has forgotten their work & moved on
- Meaningful – target individual needs & assessment criteria

MAKING THE CONNECTION BETWEEN ASSESSMENT AND SUSTAINABILITY

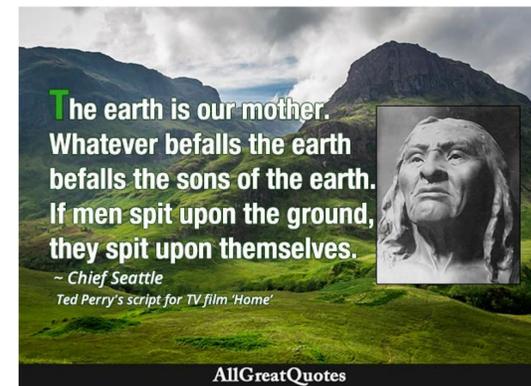
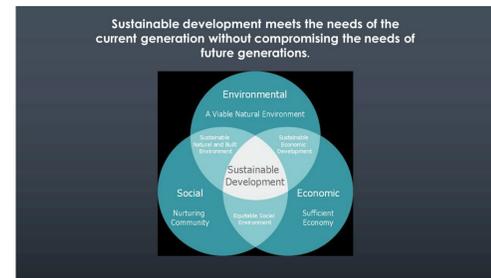
Sustainable development meets the needs of the current generation without compromising the needs of future generations.

Three Pillars of Sustainability

- Environmental
- Economic
- Social

Inclusive Assessment Connections

- Quality Education
- Gender Equality
- Reduced Inequalities



United Nations 17 Sustainable Development Goals



SDG 4 QUALITY EDUCATION

Quality Education is the goal to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

Inclusive assessment provides the opportunity to learn & develop
Motivated learners are capable of higher-level thinking
Graduates are better prepared for employment
Easy alignment with student learning outcomes
Evidence for Quality Enhancement Plans and accreditation



SDG 5 GENDER EQUALITY

Gender Equality is the goal to achieve gender equality and empower all women and girls.



Evidence that women are underrepresented in STEM fields
Women are interested and willing to attempt STEM classes
Often unsuccessful in coursework
Requires willingness to meet students where they are and assist their development
Improving success rates among women and girls impacts gender equality globally

SDG 10 REDUCED INEQUALITIES

Reduced Inequalities is the goal to reduce inequality within and among countries.

Reduce barriers for BIPOC (Black, Indigenous, and People of Color) and LGBTQ+ people
Income inequality is a large contributor to educational disparities
Geography and culture are also relevant
Inclusive assessment reduces educational disparities



REFERENCES

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4. Caeiro, S., Sandoval Hamón, L. A., Martins, R. & Bayas Aldaz, C. E. Sustainability assessment and benchmarking in higher education institutions—A critical reflection. *Sustainability* **12**, 543 (2020).
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KENDRA L. WALLIS, PHD

Associate Professor of Instruction
Director of Program Development, Resource & Energy Engineering
Dept of Electrical Engineering

501 West First Street
Arlington, TX 76019

[Wallis faculty profile](#)
Kendra.wallis@uta.edu



Students walking toward SEIR building at UTA

SPECIFICATIONS TABLE

Grades Defined

Each student starts with 3 tokens. Students may be allowed to use a token to resubmit or make-up assignments. Must earn E (Exceeds Expectations or M (Meets Expectations) for credit.

Assignments	A	B	C	D	F
Homework SLO #1 – 4 (8 items)	E on 7	M on 8	M on 7	M on 6	M < 6
Homework SLO #5 – 8 (8 items)	E on 7	M on 8	M on 7	M on 6	M < 6
Written Exams SLO #5 – 8 (3 items)	E on 3	E on 2	M on 3	M on 3	M < 3
Reflections SLO #1 – 4 (2 items)	E on 2	E on 1	M on 2	M on 1	M < 2
Project SLO #1 – 4 (1 item)	1	1	1	1	0 or 1

Wallis, K. L., 2024, Syllabus, REE 1301 Introduction to Resource & Energy Engineering

CONCLUSION

It is important to consider how student achievement is assessed. Methods that focus on talent development and seek to assess progress toward achievement of course learning outcomes are being used and can be modified by individual faculty for use across all disciplines in the university. These better assessment techniques directly contribute to sustainable development and can be linked to three specific SDGs.

Quality education is improved globally when improvements are made in the United States. Furthermore, inclusive assessment methods help to increase gender equality and to reduce inequalities overall both within the United States and disparities between countries.