

ASSUMPTION UNIVERSITY
THEODORE MARIA SCHOOL OF ARTS
DEPARTMENT OF GENERAL EDUCATION
COURSE OUTLINE 1/2025

Course: GE 1303 Science for Sustainable Future
Credit: 2 (2-0-4)
Status: General Education Requirement
Prerequisite: None
Lecturer: A. Khin Saw Mon

Course Description:

Conceptualize true knowledge through science, scientific approaches, the interrelationship of the nature, natural resources utilization, finding alternative solutions for achieving sustainable future

Course Objectives:

By the end of the course, students should be able to:

- Understand the interrelationship of human beings, science, technology, and nature
- Criticize natural resources utilization on future environmental challenges
- Analyze the importance of natural capital and ecosystem services on sustainability
- Apply knowledge to realize the importance of sustainable natural resources for future

Teaching-Learning Activities:

1. Discussions
2. Presentations
3. Case Study
4. Self-directed Learning
5. A smart citizen for a sustainable future project

Course Components and Mark Allocation:

Attendance and Participation	10 %
Classwork Assignments	30 %
Term Project	30 %
Case study	10 %
Self-directed Learning and Sharing	10 %
Personal Commitment for Sustainability	10%
Total	100%

Course Requirements and Policies:

- **Attendance**

At least **80%** class attendance is mandatory as listed on the course calendar. Absence more than 6 classes will not be allowed to take the final exam. (Students who are 15 minutes late will have their names recorded as late for that class. Three lates will be recorded as 1 absence.)

- **Assignments**

All assignments must be submitted by the given deadline or special permission must be approved from an instructor prior the due date.

- **A smart citizen for a sustainable future project**

The project must be completed by the allocated timeline. The proposal and typewritten report will be submitted by the given deadline or special permission must be approved from an instructor prior the due date. Late or missing the project will affect the student's grade.

- **Proper Dress Code Policy (University Regulations)**

During the university office hours (8.30-17.00 hours) of each regular semester, AU students are expected to wear proper / polite dress on campus. This applies, whether

students have class or not. The duration is from semester commencement to the last day of final examinations.

Proper / Polite dress for male students:

1. White short or long sleeve shirt (Shirt must be tucked into trousers neatly.)
2. Plain black or dark blue slacks
3. Dark colors leather shoes or sport shoes

Proper / Polite dress for female students:

1. White short or long sleeve blouse (Blouse must be tucked into skirt neatly.)
2. Black straight or pleated knee length (or longer) skirt
3. Dark colored, closed shoes, sling back court shoes, or sport shoes

Remark

Wearing slippers / sandals, wearing your shoes with your heel exposed, T shirts, Trousers/skirts made from jeans materials, as well as corduroy or velvet materials are not permitted.

Evaluation:

The grading system is as follows:

<u>Grade</u>	<u>Mark</u>
A	80-100 %
A ⁻	78-79 %
B ⁺	73-77 %
B	70-72 %
B ⁻	68-69 %
C ⁺	63-67 %
C	60-62 %
C ⁻	58-59 %
D	50-57 %
W	< 50 %

References:

Textbook:

Miller, G. Tyler & Spoolman, Scott. (2021). *Living in the Environment*. (20th ed.). Singapore: Cengage Learning.

Additional Reading Books:

Cunningham, W. P. & Cunningham, M. A. (2018). *Environmental Science: A Global Concern*. (14th ed.). New York: McGraw-Hill Companies.
Enger, E. D. & Smith, B. F. (2016). *Environmental Science: A Study of Interrelationships*. (14th ed.). New York: McGraw-Hill.
Miller, G. Tyler & Spoolman, Scott (2018). *Environmental Science*. (16th ed.). Singapore: Cengage Learning.

Reference Websites:

<http://esa.un.org/unpd/wpp/index.htm>
<http://climate.nasa.gov>

Study Plan and Schedule:

Lecture No.	Contents (section number(s))
1-3	I: Human and Sustainability The Environment and Sustainability • Principles of Sustainability (1.1) • Environmental Worldviews, Ethics, and Sustainability (1.3, 25.1) • Self-directed Learning-Living more sustainably

4-7	II: Human Population - Human Population Growth (1.3, 6.1) - Problems Associated with Human Population Growth (6.4) - Ecological Footprint and IPAT Model (1.2) - Self-directed Learning-World population growth and sustainability
8-11	III: Ecology - Ecosystems Components (3.2) - Energy in an Ecosystem (3.3) - Matter in an Ecosystem (3.4) - Self-directed Learning-Human impacts on natural ecosystem
12-14	IV: Biodiversity - Biodiversity Concepts - Importance of Biodiversity (4.2) - Humans and Species Extinction (9.3) - Self-directed Learning-Sustaining Biodiversity and Ecosystem Services
15-17	V: Energy Resources - Nonrenewable Energy (15.2-15.5) - Renewable Energy (16.3-16.7) - Transitioning to More Sustainable Energy Future (16.1-16.2, 16.9) - Self-directed Learning - Hydrogen-based energy
18-21	VI: Air Pollutions - Major Outdoor Air Pollutants (18.2) - Photochemical Smog - Acid deposition (18.3) - Self-directed Learning - Ozone Layer Depletion
22-23	VII: Climate Change - Causes of Climate Change (19.2) - Effects of Climate Change (19.3) - Slowing Climate Change (19.4) - Self-directed Learning- Adapting to Climate Change
24-26	VIII: Water Resources and Pollution - Earth's Water Resources (13.1) - Water Pollution-Causes and Effects (20.1) - Water Pollution Solutions (20.5) - Self-directed Learning - Using Freshwater More Sustainably
27-28	IX: Solid Waste - Solid Waste Problems (21.1) - Solid Waste Management (21.2, 21.4) - Self-directed Learning - Transitioning to Zero Waste Lifestyle (Circular Economy)
29-30	X: Term Project A Smart Citizen for a Sustainable Future Project Presentation
No Midterm & Final Examination	

September 19, 2025: Last Day to withdraw with “W”

LOCATION AND CONTACT INFORMATION

GENERAL EDUCATION (GE) office hours are Monday through Friday, 8.30 a.m. – 16.30 p.m.

Office Location: CL10

Phone: 02-7832222 Ext.2485

Email Address: general_education@au.edu

AU VISION 2000

Assumption University of Thailand envisions itself as:

- an international community of scholars,
- enlivened by Christian inspiration,
- engaged in the pursuit of Truth and Knowledge,
- serving human society, especially through the creative use of interdisciplinary approaches and cyber technology.

ENVISIONING AU GRADUATES

Assumption University of Thailand envisions its graduates as:

- healthy and open-minded persons, characterized by personal integrity, an independent mind, and positive thinking,
- professionally competent, willing to exercise responsible leadership for economic progress in a just society,
- able to communicate effectively with people from other nations and to participate in globalization.

AU UNIQUENESS

“An International Catholic University”

AU IDENTITY

- Ethics
- English Proficiency
- Entrepreneurial Spirit

THEODORE MARIA SCHOOL OF ARTS

(www.arts.au.edu)

VISION AND MISSION

Vision

An international community of business communicators in Thailand

Mission

Theodore Maria School of Arts will ensure that: the School will...

1. Enhance business language skills
2. Promote cultural awareness
3. Foster academic networking
4. Encourage ethical standards and practices

TAGLINE

เติมเต็มศิลป์ภาษา พัฒนาศาสตร์ธุรกิจ

Language Education, Business Inspiration

ARTS ORGANIZATIONAL CULTURE: More than faculty, we are family

- Open communication
- Mentoring system
- Dedication
- Caring
- Teamwork
- Commitment
- Resource sharing

Core Values

A = Adaptability

R = Responsibility

T = Togetherness

S = Sustainability

Core Competencies

Employability

Multiculturalism

Internationalization

Quality Assurance Process

Students should understand and apply the Quality Assurance Process in their study. The Plan-Do-Check-Act Cycle (PDCA) provides an easy but effective approach for problem solving and managing change, ensuring that ideas are appropriately tested before the full implementation. It can be used in all sorts of situations and can be clarified as follows:

Plan: Define the current problem, process, and issue and establish objectives and processes required to deliver the desired results.

Do: Implement the plans and new processes developed.

Check: Monitor and evaluate the implemented process by testing the results against the predetermined objectives.

Act: Apply actions necessary for improvement if the results require changes.

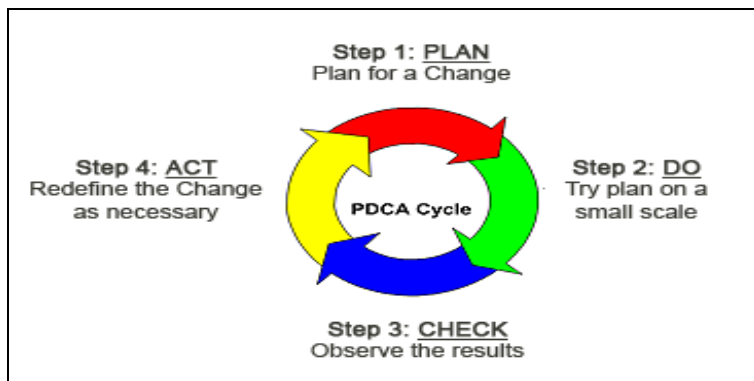


Figure 1: PDCA Cycle (<http://www.swopehealth.org>)

Plagiarism

Plagiarism is a serious academic offence, a serious breach of ethical conduct and is unacceptable student behavior. Students who plagiarize copying words or ideas without acknowledging the original writer of the words or ideas, will face disciplinary action. This will range from receiving an “F” in the subject to university suspension.

THEODORE MARIA SCHOOL OF ARTS Advising and Counseling 1/2025

All Arts students (Business English, Business French, Business Chinese, Business Japanese, and English - Chinese for Digital Communication) must meet with their advisors before they pre-register for the 2/2025 semester. Students who fail to come for their advising and counseling session will not be allowed to register for 2/2025 during the pre-registration period.

Names of advisors for semester 1/2025 will be posted on the faculty website (www.arts.au.edu), at CL 11 and on the Department Boards at SM Bldg. Arts students are required to check their advisors' names every semester and meet with them before the pre-registration.