

Environmental Management Sustainability MKAK 1003

Course Presentation



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UTM
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1.0 Introduction to course

This course is designed to expose students to various aspects of environmental management and the concept of sustainability. Current issue related to environmental problems especially on climate change and water supply are the main aspects to be addressed. Some methods and concepts of sustainable approaches are introduced in order to promote and achieve sustainable development goals.

The main course objective is to enable students to understand the concept of environmental sustainability plan and incorporate the concept in environmental management.

By the end of the course, students will success to:

1. Students will be able to identify the importance of environmental sensitive areas, as well as analyse various environmental issues related to climate change and water supply system due to unsustainable development approaches.
2. Student will be able to communicate effectively on issues pertaining to environmental management.
3. Students will be able to integrate technological approaches in order to minimize adverse environmental impacts and promote sustainable development.
4. Students will be able to evaluate and analyse data obtained from water quality control monitoring and plan mitigating and control measures for water pollution.

2.0 Course Structure

2.1 Course Planning

WEEK	TOPIC
Week 1	Environmental sustainability
Week 2	Environmental issues and problems: global warming and water Security
Week 3	Classification of natural environmental system: soil,, steep slope; lake and lakefront
Week 4	Classification of natural environmental system: River; floodplains; riverine
Week 5	Classification of natural environmental system: swamp forest; wetland; coastline
Week 6	Environmental sustainable approaches; sustainable development goal
Week 7	Integrated river management system
Week 9	Water security
Week 10	Water security
Week 11	Water footprint
Week 12	Life cycle analysis
Week 13	Carbon footprint, carbon credit and payment for environmental services
Week 14	Green building

2.0 Course Structure

2.2 Mode of Delivery



Link will be given in e-Learning Platform

2.0 Course Structure

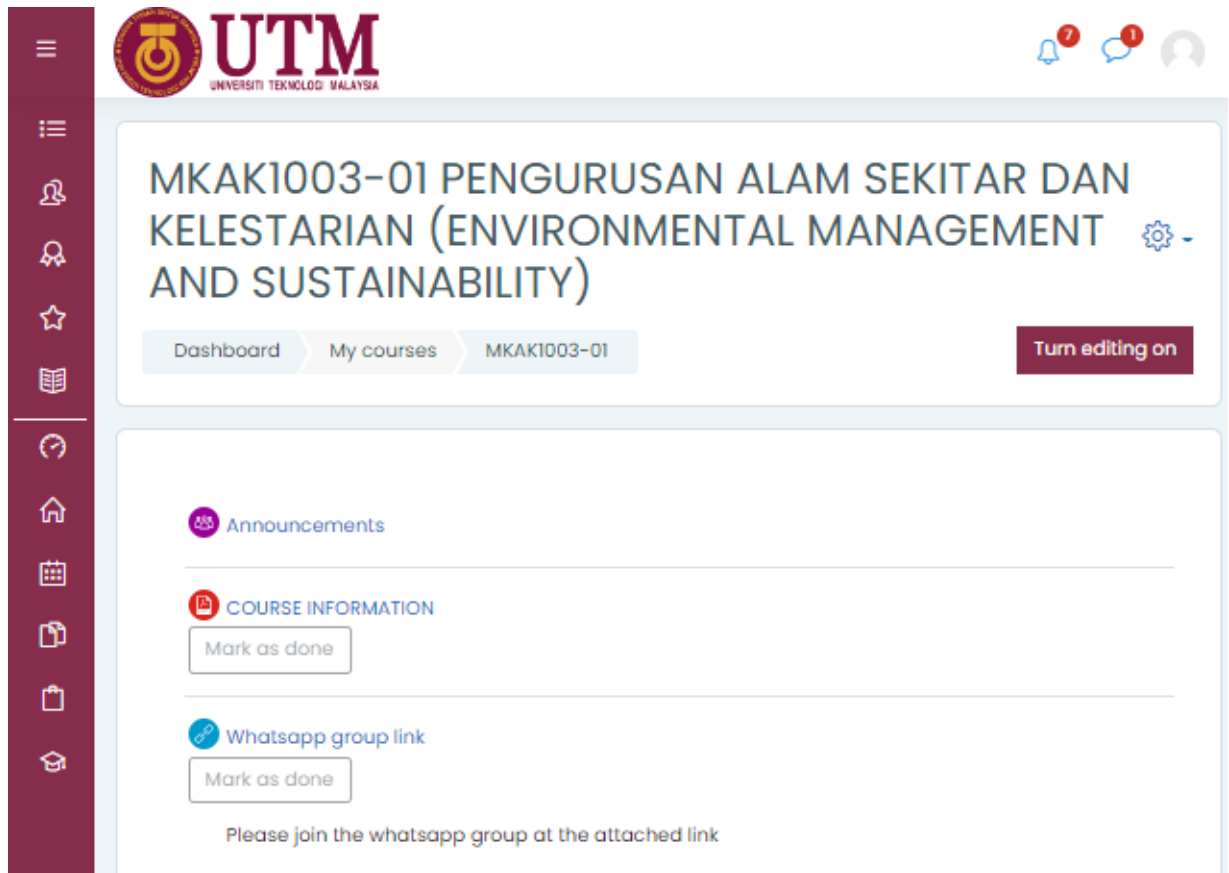
2.3 Teaching Strategy



**Lecture video will be uploaded in
YouTube
Facebook
e-Learn platform**

2.0 Course Structure

2.4 Learning Material



The screenshot shows the UTM e-Learning Platform interface. At the top left is the UTM logo (Universiti Teknologi Malaysia). The course title is "MKAK1003-01 PENGURUSAN ALAM SEKITAR DAN KELESTARIAN (ENVIRONMENTAL MANAGEMENT AND SUSTAINABILITY)". Below the title are navigation tabs: "Dashboard", "My courses", and "MKAK1003-01". A "Turn editing on" button is visible. The main content area includes an "Announcements" section, a "COURSE INFORMATION" section with a "Mark as done" button, and a "Whatsapp group link" section with a "Mark as done" button. A note below the link says "Please join the whatsapp group at the attached link".



Lecture information will be uploaded in e-Learning Platform

2.0 Course Structure

2.5 Learning Notes

The screenshot displays the UTM e-Learning Platform interface for the course MKAK1003-01. The course title is "MKAK1003-01 PENGURUSAN ALAM SEKITAR DAN KELESTARIAN (ENVIRONMENTAL MANAGEMENT AND SUSTAINABILITY)". The interface shows a list of course materials organized into two columns. Each material has a "Mark as done" button.

Material Name	Mark as done
A new type of river management	Mark as done
Catchment Management	Mark as done
Challenges IRBM	Mark as done
IRBM Notes 1	Mark as done
IRBM Notes 2	Mark as done
Water Footprint	Mark as done
Lecture Video: Water Footprint	Mark as done
Where is water?	Mark as done
Green building (norelyza)	Mark as done
LCA Note	Mark as done
Video Lecture: LCA Part 1	Mark as done
Video Lecture: LCA Part 2	Mark as done
Video Lecture: LCA Part 3	Mark as done
Carbon Footprint	Mark as done
Video Lecture: Carbon Footprint	Mark as done
Carbon Footprint Assignment	Mark as done
Know your carbon footprint	Mark as done
Green Building Malaysia	Mark as done

**Lecture Notes will be uploaded in
e-Learning Platform**

2.0 Course Structure

2.6 Video Related to the Environmental Management Sustainability

 A new type of river management

Mark as done

 Catchment Management

Mark as done

 Challenges IRBM

Mark as done

 Lecture Video: Water Footprint

Mark as done

 Where is water?

Mark as done

 Video Lecture: LCA Part 1

Mark as done

 Video Lecture: LCA Part 2

Mark as done

 Video Lecture: LCA Part 3

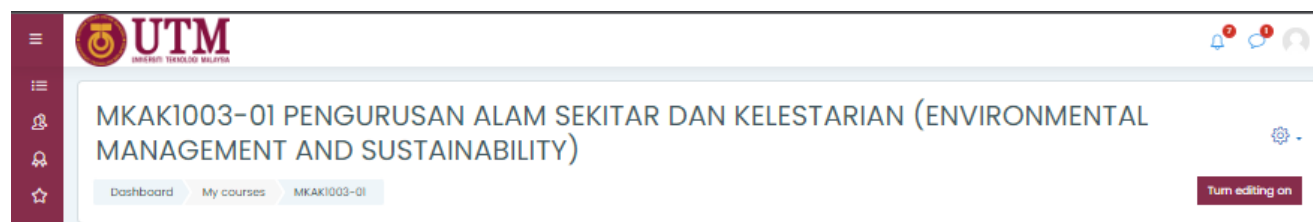
Mark as done

 [Video Lecture: Carbon Footprint](#)

Mark as done

2.0 Course Structure

2.7 Assignments



The screenshot shows the UTM (Universiti Teknologi Malaysia) e-learning platform interface. At the top left is the UTM logo. The main header displays the course title: "MKAK1003-01 PENGURUSAN ALAM SEKITAR DAN KELESTARIAN (ENVIRONMENTAL MANAGEMENT AND SUSTAINABILITY)". Below the title, there are navigation tabs for "Dashboard", "My courses", and "MKAK1003-01". On the right side, there are notification icons and a "Turn editing on" button.

Assignment on environmental sensitive areas in Malaysia

Opened: Tuesday, 17 May 2022, 12:00 AM

Due: Thursday, 30 June 2022, 12:00 AM

Water Footprint Assignment

Mark as done

Choose a product/service and discuss the [water footprint](#) of that product/service in your group using credible sources. The analysis of the [water footprint](#) must encompass the virtual, internal, and/or external [water footprint](#). It is recommended to also discuss the product's green, blue, and grey water footprints. Please present your discussion using an infographic.

LCA Assignment

Mark as done

In your group, choose TWO (2) comparable products and please list down the possible inventory of the selected products based on LCA stages. Based on your LCA analysis, select the most environmental friendly product between the two products and justify your selection.

Carbon Footprint Assignment

Opened: Tuesday, 14 June 2022, 12:00 AM

Mark as done

Assignment detail information will be uploaded in e-Learning Platform

3.0 Others

3.1 Test / Final Exam Regulation

Universiti Teknologi Malaysia (UTM) is committed to academic integrity. Plagiarism, collusion, and cheating are strictly prohibited.

- Student should write your examination answer entirely on your own without unacknowledged input from the others.
- Distributing, receiving, possessing any information in electronic, printed or any other form or cooperated with any other person when completing the examination is **STRICTLY** prohibited.
- Student is expected to submit work and present as your own without copy text or material from other sources.
- **PLAGARISM DETECTION SOFTWARE** (Turnitin) will be used to test the similarity from online sources.

3.0 Others

3.2 Reading List

1. Avlonas, K. and Nassos, G.P. Practical Sustainability Strategies: How to Gain a Competitive Advantage. John Wiley Publisher. 2013.
2. Biswas, A.K. and Tortajada, C. Water Security, Climate Change and Sustainable Development. Springer. 2016
Brinkmann, R. Introduction to Sustainability. Wiley Blackwell. 2016
3. Gannmon, P. Introduction to Energy, Environment and Sustainability, Kendall Hunt Publishing Company. 2013
4. Kerr, J.A. Introduction to Energy and Climate: Developing a Sustainable Environment. CRC Tailor and Francis Group. 2017.
5. Klopffer, W. and Grahl, B. Life cycle assessment (LCA). A guide to the best practice. John Wiley Publisher. 2014
6. Mehta, L. and Movik, Synne. Liquid Dynamics: Challenges for Sustainability in the Water Domain. Wiley Interdisciplinary Reviews: Water. Volume 1, Issue 4, Pages: 369–384, DOI: 10.1002/wat2.1031. 2014.
7. Theis, T. and Tomkin, J. Sustainability: A Comprehensive Foundation. <http://cnx.org/content/col11325/1.38/> >2012
Wheater, H.S. and Gober, P. Water security and the science agenda. Agu Publication.10.1002/2015WR016892 2015

3.0 Others

3.3 Student Learning Time

Distribution of student Learning Time (SLT) Course content outline					Teaching and Learning Activities		TOTAL SLT
	Guided Learning (Face to Face)				Guided Learning Non-Face to Face	Independent Learning Non-Face to face	
CLO	L	T	P	O			
CLO 1	12h			9h	5h	25h	51h
CLO 2	10h			6h	5.5h	18h	39.5h
CLO 3				4h		6h	10h
Total SLT	22h			19h	10.5h	49h	100.5h
Continuous Assessment				PLO	Percentage		Total SLT
1	Assignment			AKW	20		8.5h
2	Assignment			CTPS	20		8.5h
3	Assignment and Presentation			AKW CS	20		As in CLO 2 (10h)
Final Assessment					Percentage		Total SLT
1	Final Examination			AKW, CTPS	40		2.5h
Grand Total					100		120h

3.0 Others

3.3 Questionnaire for Students

COURSE EVALUATION

MKAK 1003-01 ENVIRONMENTAL MANAGEMENT SUSTAINABILITY

No data in this section.