Ain Shams University Faculty of Engineering







Course Assessment Specification (CAS)

Coursework Title : Applying WEF Nexus & Low Carbon in Designing of a New Development Project

Task Weight in the ASU Course final Grade: 40% distributed as follow:

Maximum mark available: 40

Lecturer : Assistant Professor Dr. Ahmed K. Abd El-Hameed

Contact: If you have any issues with this coursework, you may contact your lecturer.

Contact details are: Email: <u>ahmed.khaled@eng.asu.edu.eg</u>

Mobile: +201118619460

Hand-out Date : Week 3 (2 Parts)

Hand-in Date : Week 6 (Part 1), Week 12 (Part 2)

Hand-in Method: Submission through a softcopy report of landscape A3 paper size with oral

presentation for both parts.

Feedback Date: Your work will be marked and returned within two weeks.

Introduction

This coursework includes 2 assessment parts to be carried out in groups of 10 students. It is designed to meet the module Learning Outcomes as presented in the module proforma.

This report aims at applying WEF Nexus and Low Carbon approaches to conceptualize designs for new development projects in selected locations near the Egyptian borders as part of the national vision.

Learning Outcome to be assessed

- 3. Find problem solutions and develop solving skills for different site boundaries and environmental contexts (natural, man-made and human), developed through a multitude of learning and teaching modes.
- 7. Formulate the approaches for satisfying the quality of life indicators in new developments.
- 8. Recognise the process of sustainable development and integrate theory, practice, and reflection in the pursuit of a more sustainable world.
- 9. Integrate knowledge from multiple sources and perspectives to understand environmental limits governing human societies and economies and social justice dimensions of sustainability.
- 10. Collaborate effectively the skills which are related to creative thinking, problem solving in different fields.

Detail of the task

This coursework includes 2 assessment parts as followed:

Part 1: SWOT Analysis & Similar Projects (20 marks)

This part is to be carried out in groups of 10 students each, where each group will be assigned to one of the selected locations near the Egyptian borders in the Sinai Peninsula, the Eastern Desert and the Western Desert. Each group should follow the following steps:

- 1- Conducting a SWOT analysis in terms of the potential sources and applications for water, energy and food production and waste management. (1 student)
- 2- Proposing alternatives for water, energy and food production and waste management based on the SWOT analysis. (1 student)
- 3- Studying similar projects for the proposed alternatives in terms of technical requirements, Nexus integration potentials, low emissions, output repurposing and added values. (1 student)
- 4- Nominating the best components for the assigned project based on the previous studies of site potentials and best alternatives. (1 student)

Part 2: Conceptual Project Design (20 marks)

This part is to be carried out with the same groups in part 1, where each group will apply the WEF Nexus and Low Carbon approaches to propose a conceptual design for the new development project in the assigned location. Each group should follow the following steps:

- 1- Stating the objectives of the new development project in the light of the SDGs. (1 student)
- 2- Proposing separate conceptual flowcharts for the nominated water, energy, food and waste management components of the project. (4 students > 1 student for each flowchart)
- 3- Conceptualizing the comprehensive project flowchart that achieves WEF Nexus and Low Carbon approaches. (same 4 students in point 2 of part 2)
- 4- Reporting the environmental, social and economic benefits of the new development project. (1 student)

What you should hand in

For part 1, students should submit their work as a group report of landscape A3 paper size (single PDF file) with digital presentation to be presented in front of other students.

For part 2, students should submit their work as a group report of landscape A3 paper size (single PDF file) with digital presentation to be presented in front of other students.

Guide to Marking Criteria

Marking criteria Would be as listed in the attached rubric table.

Academic Misconduct

The University defines Academic Misconduct as 'any case of deliberate, premeditated cheating, collusion, plagiarism or falsification of information, in an attempt to deceive and gain an unfair advantage in assessment'. This includes attempting to gain marks as part of a team without making a contribution. The department takes Academic Misconduct very seriously and any suspected cases will be investigated through the University's standard policy. If you are found guilty, you may be expelled from the University with no award.

It is your responsibility to ensure that you understand what constitutes Academic Misconduct and to ensure that you do not break the rules. If you are unclear about what is required, please ask.



AIN SHAMS UNIVERSITY I-Credit Hours Engineering Programs (i.CHEP)



Report marking criteria

Course Code:					Course Name:						Assignm No.			ent		. Da	Date:				
Student Name:														Studen t ID:							
A (89-1			-100)		B (76-88)			5)		C (6	C (67-75)			D (60-66)				F (0	F (0-59)		
	100	96	92	89	88	84	80	92	75	72	69	29	99	64	62	09	59	40	20	0	
Literature survey (25%)	rele	synt vant	evalua hesis issue erials	of s	Critical evaluation of relevant issues and materials				Accurate description o main relevan issues				Limited evaluation description main issue				lar	sufficient and gely irrelevant aterial			
Research Objectives (25%)	define n prob l- ed n es		Complete set of research objectives					nited ectiv		arch		oorly o		d	Research problem lacking clear objectives						
Research Methodology (25%)	met com	ar an vant hodo plete leme	with	relevant research me methodology mis				thodossing	hodology r				Inappropriate research methodology			Lack of clear research methodology					
Analysis of Results & Conclusions (25%)	com	esult	s and e rele	-	Good analysis of results missing some minor conclusions			Normal analysi of results missi some basic conclusions				Incomplete analysis or results with so conclusions			ome	anal ne resu		sing proper lysis or ults and no clusions at all			
1 st marker Total				1 st marker Sig						ire					ASU Agreed Mark		d				
2 nd Marker Total					2 nd mar				rker Signature							UEL Agreed Mark					
General Comments:											UEL Grading System Agreed % equivalent at UEL Mark Rang					P	ASU Grading Scale % at ASU Grade				
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											82% to less than 95% 70% to less than 82%							93% to less than 97% A 89% to less than 93% A-			
											66% to less than 70%					84% to less than 89% B+					
											63% to less than 66% 60% to less than 63%					80% to less than 84% B 76% to less than 80% B-					
											56% to less than 60%									C+	
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AIN SHAMS UNIVERSITY I-Credit Hours Engineering Programs (i.CHEP)



PPT marking criteria

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Relevance & Organization of Ideas (50%)	 Materials cover the topic widely & deeply. All main points fully developed. No repetition 				 Materials cover the topic widely & deeply. Clearly structured. All main points valid but not always fully developed. Minor repetition or deviation. 				 Most of the materials cover the topic reasonably. Some structure. Most but not all main points valid & developed. Some repetition. 			ure. all valid	ma rele slig top • Str cle ma Re	me of iterials evant ghtly coic. ucture ar. Fe in poi petition	the cove • Unst Few, main Mate devia task.			erials do not er the topic. structured. v, if any, valid n points. erial mostly iated from the t. Inaccurate bsent.			
Rel						_															
Answering Questions (30%)	Answers are correct and to the point.			Most answers are correct.				Some answers are correct.				w ans rect.	are		ost answers are correct.						
Presentation Language (20%)	 Excellent ability to express ideas with proper language and technical vocabulary. 				 Good ability to express ideas with proper language and technical vocabulary. 			Normal ability to express ideas with proper language and technical vocabulary.			is	Low ability to express ideas with proper language and technical vocabulary.			3	exp with land tec	ore: h p gua hni	ficult to press ideas in proper guage and hnical cabulary.			
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