Faculty: Engineering Technology	
Department: Energy	**Program: Bachelor Degree**
Academic year: 2023-2024	**Semester: 1^{st} (Fall)**

Course Plan

First: Course Information

Course No. 0906540	***Course Title:* Energy Economy and Management**	***Credit Hours:3***
Prerequisite: 0906402	***Section No.: 1***	***Lecture Time: 11-12:30, Mon ,Wed***
Type Of Course:	☐ ***Obligatory Faculty Requirement Elective*** ☐ ***University Requirement*** ☐ ***ObligatoryUniversity Requirement*** ☐ ***FacultyRequirement*** ☐ ***Course Elective SpecialtyRequirementObligatorySpecialization requirement***	
Type of Learning:	☒ ***Face-to-Face Learning*** ☐ ***BlendedLearning(2 Face-to-Face + 1Asynchronous)*** ☐ ***Online Learning (2 Synchronous+1 Asynchronous)***	

Second: Instructor's Information

***Name:* Dr. Ayman Amer**		***Academic Rank:* Assistant Professor**	
Office Number:344 l		***Ext. Number:2051***	***E-mail:* aamer@zu.edu.jo**
Office Hours:	***Sunday 10-11*** ***Monday 1-2*** ***Tuesday 10-11*** ***Wednesday 1-2*** ***Thursday 10-11***		

Third: Course Description

Energy management principles; energy conservation; energy auditing; analysis; formulation of energy management options; economic evaluation, implementation & control; energy conservation techniques – conservation in energy intensive industries; steam generation, distribution systems, and electrical systems; integrated resource planning; demand-side management; cogeneration; total energy schemes; thermal insulation; energy storage; economic evaluation of conservation technologies; analysis of typical applications. Application of the principles and practices of energy management to improve energy efficiency, sustainability, and renewable resource usage.

Fourth: Learning Source

Main Reference:	***Engineering* Economy**	
Author: by Blank and Targuin	***Issue No.:6th,ed***	***Publication Year:* (2017)**
Additional Sources&Websites:	• •	
Teaching Type:	☒ ***Classroom*** ☐ ***Laboratory*** ☐ ***Workshop*** ☐ ***MS Teams*** ☐ ***Moodle***	

Fifth: Learning Outcomes

Course Code	***Course IntendedLearning Outcomes (CILOs)***	***Connection To Program ILOs Code***
Knowledge		
**K1	**Explain** general concepts of energy economics and theories of the origin of oil	*PK1
K2	**Apply** economic analysis tools to solve problems of current and future energy supply and demand	PK2
Skills		
***S1	**Apply** methodology of energy economics to accommodate changes in the field of energy	PS1
S2	**Develop** the base of conventional and unconventional energy reserves globally	PS2
Competencies		
****C1	**Identify** Energy efficiency and its indicators	PC1

*** P: Program, **K: knowledge, ***S: skills, ****C: competencies.**

Sixth: Course Structure

Lecture Date	Intended Teaching Outcomes(ILOs)	Topics	Teaching Procedures*	TeachingMethods***	References***
16/10/2023	0	Introduction to Economy	General discussions	Discussion and problem Solving	Energy Engineering
18/10/2023	1	Introduction to Economy	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering
23/10/2023	1	Factors for TMV	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering
25/10/2023	1	Factors for TMV	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering
30/10/2023	2	Combining Economy Facturs	At least one exam will be held suddenly during the semester	Discussion and problem Solving	Energy Engineering
1/11/2023	1 & 2	Combining Economy Facturs	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering
6/11/2023	3	Future Worth (FW) Analysis	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering
8/11/2023	3	Annual Worth (AW) Analysis	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering
13/11/2023	3	Rate of Return Analysis: one projects	General discussions	Discussion and problem Solving	Energy Engineering
15/11/2023	3	Rate of Return Analysis: multiple projects	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering
20/11/2023	3	Introduction to Engineering Management	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering
22/11/2023	4	Management Processes and Elements	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering
27/11/2023	3 & 4	Management Processes and Elements	At least one exam will be held suddenly during the semester	Discussion and problem Solving	Energy Engineering
29/11/2023	3 & 4	Management Processes and Elements	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering
4/12/2023	4	Schools of Management	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering
6/12/2023	5	Schools of Management	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering
11/12/2023	5	Schools of	General discussions	Discussion and	Energy Engineering

		Management		problem Solving	
13/12/2023	5	Schools of Management	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering
18/12/2023	5	Schools of Management	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering
20/12/2023	5	Energy Management	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering
27/12/2023	4	Energy Management	At least one exam will be held suddenly during the semester	Discussion and problem Solving	Energy Engineering
3/1/2024	3 & 4	Energy Management	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering
8/1/2024	6	Energy Management	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering
10/1/2024	4	Energy Management	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering
15/1/2024	3 & 4	Energy Management	General discussions	Discussion and problem Solving	Energy Engineering
17/1/2024	3 & 4	Energy Management	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering
22/1/2024	4	Energy Management	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering
24/1/2024	6	Energy Management	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering
29/1/2024	4	Energy Management	At least one exam will be held suddenly during the semester	Discussion and problem Solving	Energy Engineering
31/1/2024	6	Energy Management	Review the previous lecture, then explain the current lecture	Discussion and problem Solving	Energy Engineering

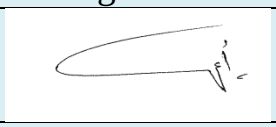
* Learning procedures: (Face-to-Face, synchronous, asynchronous). * * Teaching methods: (Lecture, video…..). ** * Reference: (Pages of the book, recorded lecture, video….).

Seventh: Assessment methods

Methods	Grade	Date	Platform	CLO'S
First Exam	20	Fixed by the Department	Classroom	K , S
Second Exam	20	Fixed by the Department	Classroom	S , S
Assign, Quizzes &Participation	10	During Semester	Classroom+Moodle	All Clo 's
Final Exam	50	Fixed by the Department	Classroom	All Clo 's

Eighth: Course Policies

- All course policies are applied on all teaching patterns (online, blended, and face-to-face Learning) as follows:
  a. Punctuality.
  b. Participation and interaction.
  c. Attendance and exams.
- Academic integrity: (cheating and plagiarism are prohibited).

Approved by:	Name	Date	Signature
Head of Department	Dr. Ayman Amer	2023/3/6	
Faculty Dean	Prof .Taiseer Alghanim	2023/3/6