EASTERN MEDITERRANEAN UNIVERSITY
FACULTY OF ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING

MENG 233 - DYNAMICS PROJECT
(Spring 2021-2022)

SECTION	STUDENT OUTCOMES	WEIGHT OF SECTION /100	MARKS OBTAINED
Abstract, References, Appendices	7	20	
1	1	20	
2	1	20	
3	6	20	
4	6	20	
TOTAL: (Out of 100)			

Instructor: **Assoc. Prof. Dr. Qasim Zeeshan**
Teaching Assistant/ Lab Instructor: **Mr. EMMANUEL CHUKWUELOKA ONYIBO /Mr. OSINACHI MBAH**

PROJECT:
DUE DATE: 3 Jun 2022

STUDENT NO: ..... NAME, SURNAME: .....
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Instructions:	Student Outcomes	
1. Late submissions will be penalized with 10 marks/ day. 2. Draw neat, labeled diagrams where necessary. 3. Write relevant equations and write your Assumptions where necessary. 4. Be clear and specific and include units. Give explanatory notes where necessary. Please carry out each step explicitly. 5. Please provide the references using APA Style of Referencing. 6. References should be from the Textbook or from an authentic source. 7. Please include the equations, diagrams, plots and figures in the report. 8. All figures and Tables must be numbered and captioned. 9. Please also submit the MODEL, pdf Soft copy of the report together with the **PRESENTATION ppt file**, **AVI File. Code/ Simulation, (if any) etc**. 10. The file/ folder uploaded should be named as **[MENG233-PROJECT-GROUP NO].** Files with any other name or format will be disregarded. Do not forget the cover page	**1** ✓	an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
	2	an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
	3	an ability to communicate effectively with a range of audiences
	4	an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
	5	an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
	6 ✓	an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
	7 ✓	an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

ABSTRACT

Abstract and Keywords

An abstract summarizes, usually in one paragraph of 300 words or less, the major aspects of the entire paper/report in a prescribed sequence that includes: 1) the overall purpose of the study and the research problem(s) you investigated; 2) the basic design/approach of the study; 3) major/key findings or trends found as a result of your analysis; and, 4) a brief summary of your interpretations and conclusions.

SECTION 1 - INTRODUCTION

Introduction of the Mechanism
History of the Mechanism
Applications of the Mechanism
*Please provide reference information i.e. using proper citation.

SECTION 2 – MODEL

Working of the Mechanism - Working Principle
*Mathematical Model (Kinematics and/or Kinetics Models) used with reference to the equations in the textbook and other reliable sources.
Model of the Mechanism (can be modelled, designed in CAD Software, SIMSCAPE etc**)**
Prototype of the Mechanism
Materials and Manufacturing Process
*Prototype can be modelled, designed in CAD Software and manufactured using Plexiglass, Balsawood or 3D Printing.
*Hydraulic, Pneumatic or Motor Actuators can be used accordingly to demonstrate the working of the Mechanism.
*Please use labelled Diagrams, Figures, Graphs, Tables, etc.

SECTION 3 – ANALYSIS

Results - Results of the Velocity, Acceleration, Force, analysis etc. using Figures, Graphs, Tables, etc. Discuss the Kinematics, Kinetics pf the system.

SECTION 4 - CONCLUSION

The conclusion is intended to help the reader understand why your research should matter to them after they have finished reading the report/paper. A conclusion is not merely a summary of the main topics covered or a re-statement of your research problem, but a synthesis of key points and, if applicable, where you recommend new areas for future research.

REFERENCES

All references on APA Style Format and must also be cited in text in Author (Year) format.

APPENDIX

CAD MODELS, Drawings, Sketches
Prototype of the Mechanism
Simulation (if any)
MATLAB CODES (if any)
SIMULINK MODELS (if any)
SIMSCAPE MODELS (if any)

Project Groups

Group No.	Title
1	Coulisse Mechanism
2	Excavator Mechanism
3	Geneva Mechanism
4	Gripper/Claw Mechanism
5	Planetary Gear Mechanism
6	Oil Well Mechanism
7	Robotic Arm Mechanism
8	Scara Robot Mechanism
9	Shaping Mechanism
10	Sylvester Kempe Linkage Mechanism
11	Windshield Viper Mechanism
12	Whitworth Quick Return Mechanism
13	Cam Mechanism
14	Power Saw Mechanism
15	Conveyer Tray Mechanism