



Course Descriptor ENGR220 Statics

ACADEMIC YEAR	2019-20	SEMESTER	Fall
Course Code	ENGR 220	Course Title	Statics
Credit hours	3	Level of study	Undergraduate
College / Centre	Engineering	Department	CVEN
Co-requisites		Pre-requisites	MATH101

1. COURSE OUTLINE

[This course discusses the fundamental principles of engineering mechanics: statics. Topics covered include force vectors, equilibrium of a particle, force system resultants, equilibrium of rigid body, structural analysis, etc.

2. AIMS

[The aims of the course are to apply knowledge of mathematics and science, to gain a clear understanding of the basic principles of mechanics, and to acquire the ability to apply these principles to solving a wide range of engineering problems.

3. LEARNING OUTCOMES, TEACHING, LEARNING and ASSESSMENT METHODS

Learning Outcomes (Definitive)	Teaching and Learning methods (Indicative)	Assessment (Indicative)
Upon successful completion of this course, students will be able to:		
1. Apply knowledge of mathematics and science	Lectures	Assignments
2. Explain the basic principles underlying the statics of particle and rigid body	Lectures	Assignments
3. Identify, formulate, and solve a wide range of engineering problems in statics	Lectures	Assignments
4.		

4. ASSESSMENT WEIGHTING

Assessment	Percentage of final mark (%)
1 st Examination	10
2 nd Examination	20
Assignments	20
Final Examination	50
TOTAL	100%

5. ACHIEVING A PASS

Students will achieve 3 credit hours for this course by passing **ALL** of the course assessments



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5. ACHIEVING A PASS

and achieving a minimum overall score of 50%.

*NB *Ensure that ALL learning outcomes are taken into account*

6. COURSE CONTENT (Indicative)

WEEK	LECTURE TOPIC	TIME (HOURS)
1	Introduction	1.5
	General principles	1.5
2	Force vectors	3.0
3	Force vectors	3.0
4	Force vectors	3.0
5	Force vectors	3.0
6	Equilibrium of a particle	3.0
7	Equilibrium of a particle	3.0
8	Equilibrium of a particle	3.0
9	Force system resultants	3.0
10	Force system resultants	3.0
11	Force system resultants	3.0
12	Equilibrium of a rigid body	3.0
13	Equilibrium of a rigid body	3.0
14	Structural Analysis	3.0
15	Summary	3.0
	TOTAL HOURS	45
1 - 15	Plus RECOMMENDED INDEPENDENT STUDY HOURS	90
	TOTAL COURSE HOURS	135

7. RECOMMENDED READING

Core text/s:

Engineering Mechanics: Statics, R.C. Hibbeler, 12th edition, Pearson, 2010

Library + online resources:

<https://www.pdfdrive.com/engineering-mechanics-statics-12th-edition-e177616272.html>