

SHRI G. S. INSTITUTE OF TECHNOLOGY & SCIENCE, INDORE  
Department of Humanities and Social Sciences  
**COURSE ARTICULATION MATRIX & CO-PO ATTAINMENT**  
**[CO-PO/PSO MAPPING]**  
**Academic Year: 2024-2025**

SEM B: JAN 2025 - JUNE 2025

B.TECH. II Year

**Subject: Economics for Engineers**

**COURSE OUTCOMES:** after completion of course, the students will be able to:

CO1. Explain economic cyclic flow and estimate the demand and demand elasticity for a product.

CO2. Plan the production and analyze the production-cost-profit relation and select the suitable project for investment.

CO3. Estimate price and the equilibrium for a firm/organization in different competitive market situations.

CO4. Identify the problems, see the opportunity, and ideate the solution to the problems

CO5. Prepare and review the financial statements of an accounting entity.

## HU26507: Mechanical Engineering

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	-	2	-	-	-	2	-	1	-	-	-	-	1	1
CO2	2	2	-	-	2	-	1	1	-	-	2	-	1	2
CO3	-	1	2	-	-	2	2	-	-	-	3	1	1	2
CO4	-	1	-	-	-	2	2	-	-	-	3		1	2
CO5	2	-	3	-	2	2	1	-	2	2	3	1	1	2
Average	2	1.5	2.5		2	2	1.5	1	2	2	2.75	1	1	1.8
Final PO Attainment	1.1	0.8	1.4	0.0	1.1	1.1	0.8	0.6	1.1	1.1	1.5	0.6	0.6	1.0

Over all Course  
Attainment = 1.7

## PROGRAM SPECIFIC OUTCOMES:

PSO 1	Apply mechanical design engineering, thermal engineering, and interdisciplinary knowledge for analyzing, designing, and manufacturing products to address the needs of society.
PSO 2	Implement state-of-the-art knowledge and technology in order to fulfill current industrial requirements.

## HU27506: Electronics and Instrumentation Engineering

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1		2				2		1					1	1	2
CO2	2	2			2		1	1			2		2		2
CO3		1	2			2	2				3	1			2
CO4		1				2	2				3				2
CO5	2		3		2	2	1		2	2	3	1	3	2	3
Average	2	1.5	2.5		2	2	1.5	1	2	2	2.75	1	2	1.5	2.2
Final PO Attainment	1.5	1.2	1.9	0.0	1.5	1.5	1.2	0.8	1.5	1.5	2.1	0.8	1.5	1.2	1.7

Over all Course  
Attainment = 2.3

### PROGRAM SPECIFIC OUTCOMES:

PSO 1	Capable of solving complex problems in the field of Instrumentation with hands on different compatible platform.
PSO 2	Should be able to associate the learning from the course related to Process control and PLC/SCADA system to arrive at solution to real world problems.
PSO 3	Capability to comprehend with the technological advancements in VLSI Design & semiconductor technology with modern EDA tools

## HU28507: Information Technology Engineering (A)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1		2				2		1					3	1	2
CO2	2	2			2		1	1			2		2	3	2
CO3		1	2			2	2				3	1		1	2
CO4		1				2	2				3				2
CO5	2		3		2	2	1		2	2	3	1	2	3	3
Average	2	1.5	2.5		2	2	1.5	1	2	2	2.75	1	2.333	2	2.2
Final PO Attainment	1.6	1.2	2.0	0.0	1.6	1.6	1.2	0.8	1.6	1.6	2.2	0.8	1.9	1.6	1.8

Over all Course Attainment =	2.4
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### **PROGRAM SPECIFIC OUTCOMES:**

#### **PSO 1: Application of Engineering and Scientific Knowledge**

Graduates will be able to apply the fundamentals of mathematics, science, and core engineering principles to analyze and solve complex problems in their specific engineering domain.

#### **PSO 2: Design and Development of Engineering Solutions**

Graduates will be capable of designing and developing innovative engineering solutions, systems, or processes that address real-world challenges, taking into consideration public safety, societal and environmental factors.

#### **PSO 3: Use of Modern Tools and Ethical Practices**

Graduates will demonstrate proficiency in using modern engineering tools and technologies for problem-solving and project execution, while upholding professional ethics, effective communication, teamwork, and readiness to adapt technological advancement for lifelong learning.

## HU28507: Information Technology Engineering (B)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1		2				2		1					3	1	2
CO2	2	2			2		1	1			2		2	3	2
CO3		1	2			2	2				3	1		1	2
CO4		1				2	2				3				2
CO5	2		3		2	2	1		2	2	3	1	2	3	3
Average	2	1.5	2.5		2	2	1.5	1	2	2	2.75	1	2.3333	2	2.2
Final PO Attainment	1.7	1.2	2.1	0.0	1.7	1.7	1.2	0.8	1.7	1.7	2.3	0.8	1.9	1.7	1.8

Over all Course  
Attainment = 2.5

### PROGRAM SPECIFIC OUTCOMES:

#### **PSO 1: Application of Engineering and Scientific Knowledge**

Graduates will be able to apply the fundamentals of mathematics, science, and core engineering principles to analyze and solve complex problems in their specific engineering domain.

#### **PSO 2: Design and Development of Engineering Solutions**

Graduates will be capable of designing and developing innovative engineering solutions, systems, or processes that address real-world challenges, taking into consideration public safety, societal and environmental factors.

#### **PSO 3: Use of Modern Tools and Ethical Practices**

Graduates will demonstrate proficiency in using modern engineering tools and technologies for problem-solving and project execution, while upholding professional ethics, effective communication, teamwork, and readiness to adapt technological advancement for lifelong learning.