



LESSON PLAN	
Course Code : S312	Course Name: Microprocessors and Interfacing
Programme: B.Tech IV Sem	Department: IT

COURSE OUTCOMES(CO)

- CO1: Understand the architecture of 8086 and write Assembly Language Program using 8086 instructions.
- CO2: Interface memory with 8086 Microprocessor
- CO3: Interface various Peripherals with 8086 Microprocessor
- CO4: Use Interrupts to handle multiple I/O devices
- CO5: Understand the architecture of 8051 and write Assembly Language Program using 8051 instructions

COURSE ARTICULATION MATRIX (Correlation between Os&POs,PSOs):

COs	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO1	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-
CO2	-	3	3	3	-	-	-	-	-	-	-	-	-	-	-
CO3	-	-	-	3	3	-	-	-	-	-	-	-	-	-	-
CO4	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-
CO5	3	-	3	-	-	-	-	-	-	-	-	-	-	-	-

Note: Enter Correlation Levels **1** or **2** or **3**. If there is no correlation, put ‘-’ **1**- Slight(Low), **2** - Moderate(Medium), **3** - Substantial (High)

No	Tentative Date	Topics to be covered	No of classes	Content Delivery Method	Actual Date	Remarks /sign
Unit-I						
1	27-11-2017	Introduction to Microprocessors-Purpose of Microprocessors, Different types of Microprocessors, their features and their comparison	1			
2	29-11-2017	Special functions of General purpose registers, 8086 flag register and function of 8086 Flags	1			
3	30-11-2017	Tutorial-I	1			
4	04-12-2017	8086 Microprocessor-Architecture	1			
5	06-12-2017	Addressing Modes of 8086	1			
6	07-12-2017	Instruction set of 8086	5			
7	15-12-2017	Tutorial-II	1			
UNIT-II						
8	18-12-2017	Assembler Directives	1			
9	20-12-2017	Programs using Logical instructions	1			

10	21-12-2017	Tutorial III	1			
11	22-12-2017	Programs using String instructions	1			
12	27-12-2017	Programs using branch instructions	1			
13	28-12-2017	Sorting of numbers	1			
14	29-12-2017	Tutorial IV	1			
15	03-01-2018	Procedures and Macros	1			
16	04-01-2018	Programs using CALL instructions	1			
17	05-01-2018	Programs to evaluate arithmetic expressions	1			
18	08-01-2018	Pin Description of 8086	1			
19	10-01-2018	Max. Mode operation of 8086	1			
20	11-01-2018	Min mode operation of 8086	1			
21	12-01-2018	Tutorial V	1			
UNIT-III						
22	22-01-2018	Machine cycles, T- States	1			
23	24-01-2018	Bus Cycle operation	1			
24	25-01-2018	Timing diagrams for read operation	1			
25	29-01-2018	Timing diagrams for write operation	1			
26	31-01-2018	Memory interfacing	1			
27	01-02-2018	I/O Interfacing	1			
28	02-02-2018	Tutorial-VI	1			
29	05-02-2018	Need for DMA,DMA data transfer Method	1			



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30	07-02-2018	Interfacing with 8237/8257-Pin description of 8257	1			
31	08-02-2018	Programs on DMA Data transfer	1			
32	09-02-2018	Tutorial-VII	1			
UNIT-IV						
33	12-02-2018	8255 PPI	1			
34	14-02-2018	Various modes of operation.	1			
35	15-02-2018	Interfacing to 8086 Keyboard	1			
36	16-02-2018	Tutorial-VIII	1			
37	19-02-2018	Seven segment Displays	1			
38	21-02-2018	Stepper Motor	1			
39	22-02-2018	D/A converter interfacing	1			
40	23-02-2018	A/D converter interfacing	1			
41	26-02-2018	Tutorial-IX	1			
UNIT-V						
42	28-02-2018	Serial data transfer schemes, RS 232C	1			
43	01-03-2018	8251 USART architecture and pin description , USART interfacing with 8086	1			
44	05-03-2018	Tutorial-X	1			
45	07-03-2018	Interrupts: Interrupt structure of 8086, Interrupt Vector table;	2			
46	09-03-2018	Interrupt service routines	2			
47	14-03-2018	Tutorial-XI	1			
48	15-03-2018	Introduction to DOS, BIOS interrupts	2			
49	19-03-2018	8259 PIC Architecture and Pin Description	3			
50	23-03-2018	Interfacing 8259 with 8086, Cascading of interrupt controller and its importance	2			
51	28-03-2018	Introduction to microcontrollers	1			
52	29-03-2018	Tutorial-XII	1			

**LESSON PLAN****Course Code : S312****Course Name: Microprocessors and Interfacing****Programme: B.Tech IV Sem****Department: IT**

Total	
Total number of classes required to complete the syllabus	62
Total number of classes available as per Schedule	62

NOTE: DELIVERY METHODS : **DM1:** Lecture interspersed with discussions/DM 1, **DM2:** Tutorial, **DM3:** Lecture with a quiz, **DM4:** Assignment/Test, **DM5:** Demonstration (laboratory, field visit), **DM6:** Presentations/PPT

At the End of the course, students attained the **Course Outcomes:CO1,CO2,CO3,CO4,CO5**& sample proofs are enclosed in Course file.

Signature			
	Name of the Faculty K.V.Ashok	Name of Course Coordinator Mr.B.V.N.R.Siva Kumar	HOD



LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)

Accredited by NAAC with 'A' Grade, ISO 9001:2015 Certified Institution

Approved by AICTE, New Delhi and Affiliated to JNTUK, Kakinada

L.B.Reddy Nagar, Mylavaram-521230, Krishna Dist, Andhra Pradesh, India

Department of Information Technology

COURSE HANDOUT

PROGRAM : B.Tech., IV-Sem., IT

ACADEMIC YEAR : 2017-18

COURSE NAME & CODE : Managerial Economics and Financial Analysis-S295

L-T-P STRUCTURE : 3-1-0

COURSE CREDITS 3

COURSE INSTRUCTOR : B.Kalyan Kumar

COURSE COORDINATOR : U.Ramababu

PRE-REQUISITE: Economics and financial accounting

COURSE OBJECTIVE :

1. To know the concepts of economics and to make them effective business Decision makers.
2. To understand the concepts of production and cost for various business Decision.
3. To understand the different types of market, market structures & pricing Strategies which help to decision making.
4. To make students understand the various types of business organizations.
5. To understand the Fundamental of accounting and to explain the process Of preparing accounting Statements & analysis for effective business Decision.

COURSE OUTCOMES(CO)

CO1: Acquire knowledge to describe the theoretical aspect of the subject i.e. describe what is management and organization.

CO2: Explain and analyze key principles of management: planning, organizing, leading, and controlling in business organizations.

CO3: Evaluate various kinds of skills in inter-personal communication, team work, leading people, and handling conflict in organizations.

CO4: Describe the basic concepts and tools of marketing.

CO5: Explain the principles of marketing and its impact on the organization.

COURSE ARTICULATION MATRIX (Correlation between COs&POs,PSOs):

COs	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO1	-	-	-	2	3	2	-	-	2	-	3	3	-	-	-
CO2	-	-	-	2	3	2	-	-	2	-	3	3	-	-	-
CO3	-	-	-	2	3	2	-	-	2	-	3	3	-	-	-
CO4	-	-	-	2	3	2	-	-	2	-	3	3	-	-	-
CO5	-	-	-	2	3	2	-	-	2	-	3	3	-	-	-

Note: Enter Correlation Levels **1** or **2** or **3**. If there is no correlation, put ‘-’
1- Slight(Low), **2** - Moderate(Medium), **3** - Substantial (High)

BOS APPROVED TEXT BOOKS:

T1 Arysari: Managerial Economics and Financial Analysis, 2/e, TMH, 2005

BOS APPROVED REFERENCE BOOKS:

R1 Varsheny & Maheswari: Managerial Economics, Sultan Chand, 2003

R2 Ambrish Gupta, Financial Accounting for Management, Pearson Education, New Delhi.

R3 Lipey & Chrystel, Economics, Oxford university press.

R4 Domnick Salvatore, Managerial Economics in a Global Economy, 4th Edition, Thomson.

COURSE DELIVERY PLAN (LESSON PLAN): IT**UNIT-I : Introduction to Managerial Economics**

S.No.	Topics to be covered	No. of Classes Required	Tentative Date of Completion	Teaching Learning Methods
1.	Syllabus discussion	1	27/11/17	TLM-1
2.	Meaning , definitions	1	29/11/17	TLM-1
3.	Micro, Macro economics	1	30/11/17	TLM-1
4.	Nature	1	02/12/17	TLM-1
5.	Scope	1	04/12/17	TLM-1
6.	Limitations	1	06/12/17	TLM-1
7.	Demand analysis	1	08/12/17	TLM-1
8.	Demand determinants	1	09/12/17	TLM-1
9.	Law of demand	1	11/12/17	TLM-1
10.	Exceptions	1	13/12/17	TLM-1
11.	Types of demand	1	15/12/17	TLM-1
12.	Elasticity of demand	1	16/12/17	TLM-1
13.	Demand forecasting	1	18/12/17	TLM-1
14.	Methods of forecasting	1	20/12/17	TLM-1
15.	Tutorial-1	1	22/12/17	TLM-3
16.	Quiz	1	23/12/17	TLM-6
No. of classes required to complete UNIT-I		16		

UNIT-II : Theory of Production and Cost Analysis

S.No.	Topics to be covered	No. of Classes Required	Tentative Date of Completion	Teaching Learning Methods
17.	Production function	1	27/12/17	TLM-1
18.	Isoquants, Isocosts, MRTS	1	29/12/17	TLM-2
19.	Least cost combination	1	30/12/17	TLM-2
20.	Laws of returns	1	03/01/18	TLM-1
21.	Cost analysis	1	05/01/18	TLM-1
22.	Cost & output relationship	1	06/01/18	TLM-1
23.	Break-even analysis	1	08/01/18	TLM-1
24.	Determination of BEP	1	10/01/18	TLM-1
25.	Significance	1	12/01/18	TLM-1
26.	Simple problems	1	13/01/18	TLM-1
27.	Quiz	1	15/01/18	TLM-6
28.	Tutorial-2	1	17/01/18	TLM-3
No. of classes required to complete UNIT-II		11		

UNIT-III : Introduction to Markets & Pricing Policies

S.No.	Topics to be covered	No. of Classes Required	Tentative Date of Completion	Teaching Learning Methods
29.	Types of competitions	1	19/01/18	TLM-1
30.	MID-I			
31.	Features, perfect, monopoly	1	20/01/18	TLM-1
32.	Monopolistic, oligopoly	1	22/01/18	TLM-1
33.	Price-out determination	1	24/01/18	TLM-1
34.	Price-out monopoly	1	26/01/18	TLM-1
35.	Price-out monopolistic	1	27/01/18	TLM-1
36.	Objectives	1	29/01/18	TLM-1
37.	Policies of pricing	1	31/01/18	TLM-1
38.	Methods of pricing	1	02/02/18	TLM-1
39.	Methods of pricing	1	05/02/18	TLM-1
40.	Quiz	1	07/02/18	TLM-6
41.	Tutorial -3	1	09/02/18	TLM-3
No. of classes required to complete UNIT-III		12		

UNIT-IV: Capital and Capital Budgeting

S.No.	Topics to be covered	No. of Classes Required	Tentative Date of Completion	Teaching Learning Methods
42.	Capital , significance	1	10/02/18	TLM-1
43.	Types of capital	1	12/02/18	TLM-1
44.	Working capital requirements	1	14/02/18	TLM-4
45.	Components of WC	1	16/02/18	TLM-4
46.	Factors determining WC	1	17/02/18	TLM-4
47.	Methods of raising funds	1	19/02/18	TLM-4
48.	Scope of capital budgeting	1	21/02/18	TLM-4
49.	Techniques of CB	1	23/02/18	TLM-1
50.	Payback, ARR	1	24/02/18	TLM-4
51.	IRR NPV	1	26/02/18	TLM-4
52.	PI		28/03/18	TLM-4
53.	Tutorial-4		02/03/18	TLM-3
No. of classes required to complete UNIT-IV		12		

UNIT-V: Introductin to Financial Accounting

S.No.	Topics to be covered	No. of Classes Required	Tentative Date of Completion	Teaching Learning Methods
54.	Double entry	2	03/03/18	TLM-1
55.	Book keeping	1	05/03/18	TLM-1
56.	Journal	1	07/03/18	TLM-4
57.	Ledger	1	09/03/18	TLM-4
58.	Trial balance	1	10/03/18	TLM-4
59.	Final accounts	1	12/03/18	TLM-4
60.	Ratio analysis	1	14/03/18	TLM-4
61.	Liquidity ratio	1	16/03/18	TLM-4
62.	Activity ratios	1	17/03/18	TLM-4
63.	Capital , profitability ratios	1	19/03/18	TLM-4
64.	Tutorial -5		21/03/18	TLM-3
65.	MID-II			
No. of classes required to complete UNIT-V		13		

Contents beyond the Syllabus

S.No.	Topics to be covered	No. of Classes Required	Tentative Date of Completion	Actual Date of Completion	Teaching Learning Methods	Learning Outcome COs	Text Book followed	HOD Sign Weekly
66.	Global market	1	08/02/18		TLM-1	C03	Internet	
67.	stock market	1	02/03/18		TLM-1	C04	e-journal	

Teaching Learning Methods					
TLM1	Chalk and Talk	TLM4	Problem Solving	TLM7	Seminars or GD
TLM2	PPT	TLM5	Programming	TLM8	Lab Demo
TLM3	Tutorial	TLM6	Assignment or Quiz	TLM9	Case Study

ACADEMIC CALENDAR:

Description	From	To	Weeks
I Phase of Instructions-1	27-11-17	13-01-18	7W
Sankranthi Holidays	14-01-18	15-01-18	-
I Mid Examinations	16-01-18	20-01-18	1W
II Phase of Instructions	22-01-18	24-03-18	9W
II Mid Examinations	26-03-18	31-03-18	1W
Preparation and Practicals	02-04-18	14-04-18	2W
Semester End Examinations	16-04-18	28-04-18	2W

EVALUATION PROCESS:

Evaluation Task	COs	Marks
Assignment/Quiz - 1	1	A1=5
Assignment/Quiz - 2	2	A2=5
I-Mid Examination	1,2	B1=20
Assignment/Quiz - 3	3	A3=5
Assignment/Quiz - 4	4	A4=5
Assignment/Quiz - 5	5	A5=5
II-Mid Examination	3,4,5	B2=20
Evaluation of Assignment/Quiz Marks: $A = (A1 + A2 + A3 + A4 + A5) / 5$	1,2,3,4,5	A=5
Evaluation of Mid Marks: $B = 75\% \text{ of Max}(B1, B2) + 25\% \text{ of Min}(B1, B2)$	1,2,3,4,5	B=20
Cumulative Internal Examination : A+B	1,2,3,4,5	A+B=25
Semester End Examinations	1,2,3,4,5	C=75
Total Marks: A+B+C	1,2,3,4,5	100

Course Instructor

Course Coordinator

Module Coordinator

HOD

5. Course Delivery Plan:

S.NO	TOPIC TO BE COVERED	As per the schedule		Actual Date	DM
		Number of classes	Date		
Unit-1					
1	Introduction class	1	27-11-17		1
2	Introduction to probability	1	28-11-17		1
3	Basic definitions, simple problems	1	30-11-17		1
4	Problem on addition theorem	1	02-12-17		1
5	Conditional probability	1	04-12-17		1
6	Multiplication theorem, examples	1	05-12-17		1
7	Independent events, theorems	1	07-12-17		1
8	Problems on multiplication theorem	1	11-12-17		1
9	Problems on independent events	1	12-12-17		1
10	Baye's theorem	1	14-12-17		1
11	Problems on baye's theorem	1	16-12-17		1
12	Tutorial	1	18-12-17		3
13	Assignment & Quiz questions	1	19-12-17		4
Number of classes		13			
Unit-II					
14	Random variables(discrete & continuous)	1	21-12-17		1
15	Mathematical Expectation ,relations	1	23-12-17		1
16	Problems on PMF	1	26-12-17		1
17	Problems on PDF	1	28-12-17		1
18	Binomial Distribution , mean and variance	1	30-12-17		1
19	Problems on Binomial distribution	1	02-01-18		1
20	Poisson distribution, mean and variance	1	04-01-18		1
21	Problems on Poisson distribution	1	06-01-18		1
22	Normal distribution	1	08-01-18		1
23	Problems on Normal Distribution	1	09-01-18		1
24	Gamma distribution, simple applications	1	11-01-18		1
25	Tutorial, Assignment & Quiz	1	12-01-18		3,4
Number of classes		12			
Unit-III					
26	Sampling distribution ,definitions	1	22-01-18		1
27	Sampling distribution of mean	1	23-01-18		1
28	problems	1	25-01-18		1
29	Problems on central limit theorem	2	27-01-18 29-01-18		1
30	Estimation	1	30-01-18		1
31	Point and interval estimation	1	01-02-18		1
32	Interval estimation of mean	1	03-02-18		1
33	Interval estimation of proportion	1	06-02-18		1
34	Tutorial, Assignment & Quiz	1	08-02-18		3,4
Number of classes		10			
Unit-IV					
35	Testing of Hypothesis , definitions	1	12-02-18		1
36	Z-test for single mean	1	15-02-18		1
37	Z-test for difference of means	1	17-02-18		1
38	Z-test for single proportion	1	19-02-18		1
39	Z-test for difference of proportions	1	20-02-18		1
40	t-test for single mean	1	22-02-18		1

41	t-test for difference of means	1	24-02-18		1
42	F-test for population variances	1	26-02-18		1
43	χ^2 test for goodness of fit	1	27-02-18		1
44	χ^2 test for independence of attributes	1	01-03-18		1
45	Tutorial, Assignment & Quiz	1	03-03-18		3,4
Number of classes		11			
Unit-V					
46	Simple Bi-variate Correlation	1	05-03-18		1
47	Problems on Pearson's Correlation	1	06-03-18		1
48	Regression lines	1	08-03-18		1
49	Problems on Regression lines	1	12-03-18		1
50	Problems on Regression coefficients	1	13-03-18		1
51	Problems on rank Correlation	1	15-03-18		1
52	Problems on repeated ranks	1	17-03-18		1
53	Fitting a straight line, Second degree	1	19-03-18		1
54	Fitting of exponential and other curves	1	20-03-18		1
55	Tutorial	1	22-03-18		3
56	Assignment & Quiz questions	1	24-03-18		4
Number of classes		11			
Total Number of classes		57			

Delivery Methods (DM):

1.Chalk & Talk 2. ICT Tools 3. Tutorial 4. Assignment/Test/Quiz
5. Laboratory/Field Visit 6. Web based learning.

	Course Instructor	Course Coordinator	Module Coordinator	HOD
Signature				
Name of the Faculty	M.Rami Reddy			

PRINCIPAL



LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

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Faculty Name: K.V.ASHOK,V.RAVISEKHAR REDDY,M.SIVA SANKARA RAO **LAB SCHEDULE**

Date: 2

Year: B.Tech - IV SEM

MICROPROCESSORS & INTERFACING

IT

S.NO.	UNIT	DESCRIPTION	II Batch(TUE)		I Batch(THU)		Signature
			Planned	Performed	Planned	Performed	
1.		Introduction to 8086 Kits & Debug	28/11/17		30/11/17		
2.		Programs on Data Transfer & Exchange	05/12/17		07/12/17		
3.		Programs on ADD,ADC,SUB	12/12/17		14/12/17		
4.		Programs on MUL & DIV	19/12/17		21/12/17		
5.		Programs on code Conversion	26/12/17		28/12/17		
6.		Programs on Sorting	02/01/18		04/01/18		
7.		Programs on String	09/01/18		11/01/18		
8.		Programs on Subroutines, MASM	30/01/18		01/02/18		
9.		DAC Interfacing- Generation of Waveforms	06/02/18		08/02/18		
10.	Cycle	ADC Interfacing	20/02/18		15/02/18		
11.	Cycle	Stepper Motor Interfacing	27/02/18		22/02/18		
12.	Cycle	Key Board Interfacing	06/03/18		01/03/18		
13.	Cycle	Display Interfacing	13/03/18		08/03/18		
14.	Cycle	8051 Program- Program & IO	20/03/18		15/03/18		
15.	Cycle	INTERNAL EXAM	27/03/18		22/03/18		

Signature of the Faculty
DEPARTMENT, IT

HEAD OF THE

Faculty Name: K.V.ASHOK,V.RAVISEKHAR REDDY,M.SIVA SANKARA RAO