

E.G.S. PILLAY ENGINEERING COLLEGE

(Autonomous)

Approved by AICTE, New Delhi | Affiliated to Anna University, Chennai |
Accredited by NAAC with 'A' Grade | Accredited by NBA (CIVIL, CSE, ECE, EEE, IT, MECH)
NAGAPATTINAM – 611 002



B.E Mechanical Engineering Full Time Curriculum And Syllabus

Second Year – Fourth Semester

Course Code	Course Name	L	T	P	C	Maximum Marks		
						CA	ES	Total
1702MA403	Numerical Methods and Statistics	3	2	0	4	40	60	100
1702ME401	Thermal Engineering	3	2	0	4	40	60	100
1702ME402	Measurements and Metrology	2	0	2	3	50	50	100
1702ME403	Kinematics of Machines	2	2	0	3	40	60	100
1702ME404	Design of Machine Elements	3	2	0	4	40	60	100
1702ME405	Manufacturing Technology -II	3	0	0	3	40	60	100
1701CH201*	Environmental Studies*	3*	0	0	3*	40*	60*	100*
1702ME451	Thermal Engineering Laboratory	0	0	2	1	50	50	100
1702ME452	Manufacturing Technology Laboratory – II	0	0	2	1	50	50	100
1704ME453	Technical Seminar II	0	0	2	1	100	-	100
1704GE451	Life Skills: Verbal Ability	0	0	2	1	100	-	100
		16/ 19*	8	10	25/ 28*	550/ 590*	450/ 510*	1000/ 1100*

*For lateral entry students only

L – Lecture | T – Tutorial | P – Practical | CA – Continuous Assessment | ES – End Semester

1702MA403 **NUMERICAL METHODS AND STATISTICS** **L T P C**
(Common to B.E - Civil, EEE and Mech.) **3 2 0 4**

PREREQUISITE:

1. Engineering Mathematics I
2. Engineering Mathematics II
3. Engineering Mathematics III

COURSE OBJECTIVES:

1. To solve the engineering problem, by use of numerical tools
2. To understand the concept of interpolation
3. To analyze the population and samples using statistics techniques

UNIT I INTERPOLATION AND APPROXIMATION **12 Hours**

Interpolation with unequal intervals - Lagrange's interpolation – Newton's divided difference interpolation – Interpolation with equal intervals – Newton's forward and backward difference formulae.

UNIT II NUMERICAL DIFFERENTIATION **12 Hours**

Approximation of derivatives using interpolation polynomials-Taylor's series method – Euler's method - Modified Euler's method - Fourth order Runge-Kutta method for solving first order equations

Unit III NUMERICAL INTEGRATION **12 Hours**

Numerical integration using Trapezoidal, Simpson's 1/3 rule – Romberg's method - Two point and three Point Gaussian quadrature formulae – Evaluation of double integrals by Trapezoidal and Simpson's 1/3 rules.

UNIT IV SOLUTION OF ALGEBRAIC AND TRANSCENDENTAL EQUATIONS **12 Hours**

Solution of algebraic and transcendental equations - Newton Raphson method- Solution of linear system of equations - Gauss elimination method – Gauss Jordan method – Iterative methods of Gauss Jacobi and Gauss Seidel

UNIT V TESTING OF HYPOTHESIS **12 Hours**

Large sample test based on Normal distribution for single mean and difference of means - Tests based on t and F distributions for testing means and variances – Contingency table (Test for Independency) – Goodness of fit

TOTAL: 60 HOURS

FURTHER READING / CONTENT BEYOND SYLLABUS / SEMINAR :

1.Finding Eigen value using power method 2.Cubic Spline

COURSE OUTCOMES:

After completion of the course, Students will be able to

CO1: To find the intermediate values, when huge amounts of experimental data are involved. CO2:
To solve first order differential equation using Numerical methods

CO3: To perform Integration using Numerical methods

CO4: To solve algebraic and transcendental Equations numerically CO5: Analyses the statistical data

REFERENCES:

1. Johnson R.A.Gupta C. B, Miller and Freunds Probability and statistics for Engineers, 7th edition ,Pearson Education,2007
2. Grewal B.S and Grewal J.S, Numnerical methods in Engineering and Science, 6th edition, Khanna Puplishers,2004
3. Walpole R.E. Myers S.L ,Ye.K, Probability and statistics for Engg and scientists, 8th edition Pearson education,2007
4. Gerald C.F Wheatley P.O, Applied Numerical Analysis, 6th edition ,Pearson education Asia 2006
5. Nptel.ac.in/courses/111105035, www.nptelvideos.in/2012/11/Mathematics.html
6. www.learnerstv.com/Free-maths-video lectures - ltv348-page1.html
7. www.indiastudychannel.com

1702ME401

THERMAL ENGINEERING

L T P C
3 2 0 4

UNIT I GAS POWER CYCLES

12 Hours

Air standard cycles -Otto, Diesel and Dual Calculation of mean effective pressure and air standard efficiency. Gas turbine power plant cycle, Brayton cycle, expression for efficiency, work ratio.

UNIT II INTERNAL COMBUSTION ENGINES

12 Hours

Internal combustion engines - Classification - Components and functions - Comparison. Valve Timing diagram and port timing diagram - Fuel supply systems - Ignition Systems Lubrication system and cooling system. Performance calculation, Heat balance sheet preparation- Air-fuel ratio calculation- Knocking and detonation.

UNIT III STEAM NOZZLES AND TURBINES

12 Hours

Flow of steam through Nozzles-Shapes of nozzles, effect of friction, critical pressure ratio, supersaturated flow. Impulse and reaction principles- Compounding of Turbines - velocity diagrams for simple and multistage turbines- Speed regulations- Governors.

UNIT IV AIR COMPRESSOR

12 Hours

Classification and working Principle-Work of compression with and without clearance, volumetric efficiency, Isothermal efficiency and isentropic efficiency of reciprocating air compressors. Multistage air compressor and inter cooling, Work of multistage air compressor. Rotary compressors- Centrifugal, vane and roots blowers

UNIT V REFRIGERATION AND AIR-CONDITIONING

12 Hours

Vapour compression refrigeration cycle Effect of superheat, sub cooling of refrigerant, performance calculations. Working principle of vapour absorption system- Ammonia, water, Lithium bromide water systems (Elementary treatment only), and comparison between vapour compression and absorption systems. Cooling load calculations, Concept of RSHP, GSHP, ESHP, Air conditioning systems.

Reference(s)

1. Kothandaraman.C.P., Domkundwar.S. and A.V. Domkundwar., A course in Thermal Engineering, Dhanpat Rai & Sons, Fifth edition, 2002.
2. C. P. Kothandaraman, Steam Tables, New Age International Private limited, 2007.
3. R. S. Khurmi & J. K. Gupta, Refrigeration Tables with Chart, S Chand & Company Limited, New Delhi, 2008.
4. Yunus A. Cengel, Michael A. Boles, Thermodynamics An Engineering Approach, Tata McGraw Hill Publishing Company Pvt. Ltd., New Delhi, 2008.
5. Mahesh M. Rathore, Thermal Engineering, Tata McGraw - Hill Education Private Limited, New Delhi, 2011.
6. <http://nptel.ac.in/courses/112106133/>

After successful completion of the course, students will be able to

Cos	Competency	Cognitive level
CO1	Calculate mean effective pressure and air standard efficiency of various gas power cycles.	Apply
CO2	Determine the performance characteristics of internal combustion engines.	Apply
CO3	Describe the performance characteristics of steam nozzles and steam turbines.	Understand
CO4	Calculate the performance characteristics of air compressors.	Apply
CO5	Calculate the performance characteristics of refrigeration and air conditioning systems.	Apply
CO6	Design a suitable air conditioning system by cooling load calculation.	Apply

1702ME402

MEASUREMENTS AND METROLOGY LABORATORY

LTPC

0021

LIST OF EXPERIMENTS:

1. Comparing the accuracy of Vernier Caliper, Vernier Height Gauge, Vernier Depth Gauge and Micrometer to check the various dimensions of a given specimen.
2. Checking the dimensional limits of ten similar components using Mechanical Comparator.
3. Measurement of taper angle of a given specimen by using Sinebar.
4. Measurement of screw thread specifications by Floating Carriage Micrometer.
5. Measurement of gear tooth specifications by using Gear Tooth Vernier Caliper.
6. Measurement of gear tooth specifications by using Tool Maker's Microscope
7. Differentiate the work piece by its Surface Roughness value
8. Measurement of Straightness of a given job by using Autocollimator
9. Temperature measurement by using Thermocouple.
10. Measurement of force using Force Measuring Setup.
11. Measurement of Torque using Torque Measuring Setup
12. Measurement of Displacement using LVDT.
13. Measurement of bore diameter using Telescopic Gauge
14. Measurement of gear tooth specifications by using Profile projector

Total:30 Hours

REFERENCES:

1. Jain R.K., —Engineering Metrology, Khanna Publishers, 2005
2. Alan S. Morris, -The Essence of Measurement, Prentice Hall of India, 1997
3. Beckwith, Marangoni, Lienhard, -Mechanical Measurements, Pearson Education, 2006.
4. Donald Deckman, -Industrial Instrumentation, Wiley Eastern, 1985.

FURTHER READING / CONTENT BEYOND SYLLABUS / SEMINAR :

1. Intermittent motion mechanisms - calculation of velocity and acceleration of two and four-wheel vehicle.
2. Cam mechanism in milling machine - Automotive transmission gear trains - Gear train in ships and aero planes.
3. Application Ropes and chain drives.

COURSE OUTCOMES:

After completion of the course, Students will be able to

CO1:	Differentiate the basic machine mechanisms.	K2
CO2:	Calculate velocity and acceleration of machine mechanisms.	K2
CO3:	Construct the cam profile for different types of follower motion.	K3
CO4:	Describe the kinematic terminologies of spur gear and calculate speed ratio of various types of gear train.	K2
CO5:	Solve the amount of power transmitted by friction drives.	K2
CO6:	Utilize mechanism for new machine development.	K3

REFERENCES:

1. S. S. Rattan, Theory of Machines, Tata McGraw Hill Publishing Company Pvt. Ltd, New Delhi, 2014.
2. J. J. Uicker, G. R. Pennock and J. E. Shigley, Theory of Machines and Mechanisms, Oxford University Press, New York, 2011.
3. Ballaney P L, Theory of Machines and Mechanisms, Khanna Publishers, New Delhi, 2005.
4. Sadhu Singh, Theory of Machines, Pearson Education, Second Edition, 2012.
5. Rao J S and Dukkipati, Mechanism and Machine Theory, Wiley- Eastern Ltd., New Delhi, 2006.
6. <http://nptel.ac.in/courses/112104121/1>

1702ME404	Design of Machine Elements	L	T	P	C
		3	2	0	4
Course Objectives					
<ul style="list-style-type: none"> ➤ To learn the design procedure of machine elements subjected to simple and variable loads. ➤ To study the design procedure of shafts and couplings. ➤ To provide knowledge on the design of bolted and welded joints. ➤ To provide knowledge on the design of helical, leaf and torsional springs subjected to constant and variable loads. ➤ To study the selection procedure of sliding and rolling contact bearings. 					
UNIT I	STEADY AND VARIABLE STRESSES				12 Hrs
Introduction to the design process - Design of straight and curved beams – „C“ Frame and Crane hook. Stress concentration - Design for variable loading - Soderberg, Goodman, Gerber methods and combined stresses - Theories of failure.					
UNIT II	DESIGN OF SHAFTS AND COUPLINGS				12 Hrs
Design of shafts based on strength, rigidity and critical speed. Design of rigid flange coupling - Design of flexible coupling.					
UNIT III	DESIGN OF JOINTS				12 Hrs
Design of bolted joints - stresses due to static loading, eccentrically loading. Design of welded joints - Butt and Fillet welded Joints - Strength of parallel and traverse fillet welded Joints.					
UNIT IV	DESIGN OF SPRINGS				12 Hrs
Types, End connections and design parameters. Design of helical springs - Circular and noncircular wire - Concentric springs. Design of leaf and torsional springs under constant and varying loads.					
UNIT V	DESIGN OF BEARINGS				12 Hrs
Types and selection criteria - Design of journal bearings - Design of rolling contact bearing Ball and roller bearing.					
				Total:	60 Hrs

Course Outcomes (COs):

After successful completion of the course, students will be able to

	Competency	Cognitive level
CO1	Calculate stress concentration of plate under simple and variable loadings.	Understand
CO2	Design the parameters of different types of couplings.	Apply
CO3	Design the solid and hollow shafts for various engineering applications.	Apply
CO4	Design the bolted and welded joints subjected to static and variable load conditions.	Apply
CO5	Estimate the parameters of helical, leaf and torsional springs subjected to variable loads.	Understand
CO6	Design a suitable bearing for various applications.	Apply

Text / Reference Books

Sl. No.	Title of the Book	Author(s)	Publisher
TEXT BOOKS			
T1	“Design of Machine Elements”, 3rd Edition,.	Bhandari V,	Tata McGraw-Hill Book Co, 2010.
T2	“Mechanical Engineering Design”,	Joseph Shigley, Charles Mischke, Richard Budynas and Keith Nisbett	8th Edition, Tata McGraw-Hill, 2008.
REFERENCES			
R1	“Machine Design”,	Sundararajamoorthy T. V. Shanmugam .N,	Anuradha Publications, Chennai, 2003
R2	“Fundamentals of Machine Design”,	Robert C. Juvinall and Kurt M. Marshek	4th Edition, Wiley, 2005
R3	“Machine Design”,	Alfred Hall, Halowenko, A and Laughlin, H.,	Tata McGraw-Hill BookCo.(Schaum’s Outline), 2010
R4	“Fundamentals of Machine Elements”,.	Bernard Hamrock, Steven Schmid,Bo Jacobson,	2nd Edition, Tata McGraw-Hill Book Co., 2006
REFERENCE WEBSITES			
1	http://ocw.mit.edu/courses/mechanical-engineering/2-12-introduction-to-robotics-fall-2005/lecture-notes/		
2	http://www.academicearth.org/courses/introduction-to-robotics		
3	http://robotics.cucei.udg.mx/Index_files/page0004.html		
4	http://www.learnerstv.com/Free-Engineering-Video-lectures-ltv071-Page1.htm		
5	http://www.used-robots.com/robot-education.php?page=robots+in+medicine		
6	http://www.informationweek.com/news/galleries/healthcare/patient/229100383		
7	http://rapidlibrary.com/files/wearable-robots-biomechatronic-exoskeletons-pdf_35446369.html		
8	http://www.wtec.org/robotics/report/03-Space.pdf		
9	http://uni-obuda.hu/conferences/SAMI2004/smrcek.pdf		

1702ME405

MANUFACTURING TECHNOLOGY -II

L T P C

3 0 0 3

PREREQUISITE:

1. Engineering Physics
2. Engineering Chemistry
3. Fundamentals of Mechanical Engineering
4. Manufacturing Technology-1

COURSE OBJECTIVES:

1. To learn the metal cutting theory and calculate the forces involved in it.
2. To study construction, working and operations of centre, semi-automatic and automatic lathes.
3. To provide the knowledge on construction, working of milling and gear cutting machines.
4. To impart knowledge on construction, working and operations of reciprocating, drilling and boring machines.
5. To provide knowledge on construction, working of broaching, grinding and few fine finishing processes.

UNIT I METAL CUTTING THEORY

9 Hours

Introduction - Orthogonal, Oblique Cutting and types of chip formation. Mechanisms of metal cutting - Shear plane, Stress, Strain and cutting forces. Merchant's Circle - Deriving the forces, calculations. Cutting tool - Properties, materials, wear, single point tool nomenclature, tool life and its calculations. Cutting fluids - Types and its properties.

UNIT II LATHE, SEMI AUTOMATS AND AUTOMATS

9 Hours

Introduction - Types- Centre Lathe - Construction, specification, operations. Mechanisms - Head stock driven using all geared type and thread cutting. Work holding devices - Centres, chucks, carrier with catch plate and face plates. Calculation of machining time - Capstan and turret lathes - Introduction, turret indexing and bar feeding mechanism. Automats - single spindle, multi spindle and their types

UNIT III MILLING MACHINE AND GEAR CUTTING MACHINES

9 Hours

Milling - Introduction, types, up milling, down milling, operations, and nomenclature of plain milling cutter. Indexing - simple and differential indexing methods. Gear cutting-gear milling, gear shaper and gear hobber.

UNIT IV RECIPROCATING MACHINES, DRILLING AND BORING MACHINES

9 Hours

Shaper, Planer and Slotter - Introduction, types, specification and quick return mechanisms. Drilling - Introduction, types, construction of universal drilling machine, specification, types of drills and nomenclature of twist drill. Introduction to horizontal boring machine.

UNIT V BROACHING AND FINISHING PROCESSES

9 Hours

Broaching - Introduction, types and tool nomenclature. Finishing processes - Grinding -Introduction, types, grinding wheel- specification, selection, glazing, loading, dressing and truing. Fine finishing processes - Honing, lapping, polishing, buffing and super finishing.

TOTAL: 45 HOURS

FURTHER READING / CONTENT BEYOND SYLLABUS / SEMINAR :

Select proper Machines and list the sequence of operations to produce the components – External threaded shafts with key way, Hexagonal bolt and Hexagonal nut.

REFERENCES:

1. J. P. Kaushish, Manufacturing Processes, Prentice Hall India Learning Private Limited., NewDelhi, 2013.
2. Serope Kalpakjian and Steven R Schmid, Manufacturing Engineering and Technology, Pearson Education Limited., New Delhi, 2013.
3. P. N. Rao, Manufacturing Technology- Metal Cutting and Machine Tools, Tata McGrawHillPublishing Company Private Limited., New Delhi, 2013
4. S. K. HajraChoudhury, Elements of Workshop Technology. Vol. II, Media Promoters Private Limited., Mumbai, 2013.
5. P.C Sharma, Manufacturing Technology - II, S. Chand & Company Limited. New Delhi, 2012.

COURSE OUTCOMES:

After completion of the course, Students will be able to

CO	Course Outcomes	BL
CO1	Explain the mechanisms of metal cutting, cutting tool materials, tool wear and cutting fluids.	K2
CO2	Discuss about the constructional features of different types of lathe parts and their operations.	K2
CO3	Describe the construction and working of milling and gear cutting machine.	K2
CO4	Illustrate the various types of reciprocating, drilling and boring machines.	K2
CO5	Describe the construction and working of broaching and finishing process.	K2
CO6	Measure the metal removal rate of the work piece in various speeds.	K3

SUBJECT INCHARGE

HOD/MECH

1702ME451	THERMAL ENGG. LABORATORY	L	T	P	C
		0	0	2	1

Course Objectives

1. To learn the port timing and valve timing diagram of two stroke and four stroke internal combustion engines.
2. To study the fuel properties, performance and emission characteristics of IC engines.
3. To study the performance of IC engine on retardation.
4. To study the performance of two stage reciprocating air compressor.
5. To study the performance of refrigeration and air conditioning system

EXPERIMENT 1	4 Hours
Experimental study on port timing and valve timing diagram of IC engines.	
EXPERIMENT 2	4 Hours
Experimental study on flash point, fire point of the given oil sample.	
EXPERIMENT 3	2 Hours
Determination of dynamic viscosity of the given using Red wood viscometer	
EXPERIMENT 4	2 Hours
Experimental study of performance test on 4-Stroke Petrol engine.	
EXPERIMENT 5	2 Hours
Experimental study of performance on 4-Stroke diesel engine with mechanical loading.	
EXPERIMENT 6	2 Hours
Experimental study of performance on 4-Stroke diesel engine with electrical loading	
EXPERIMENT 7	2 Hours
Experimental study of performance on 4-Stroke diesel engine with hydraulic loading.	
EXPERIMENT 8	2 Hours
Heat balance test on 4-Stroke diesel engine with mechanical loading.	
EXPERIMENT 9	2 Hours
Morse test on multi-cylinder petrol engine.	
EXPERIMENT 10	2 Hours
Retardation test on 4-Stroke diesel engine with mechanical loading	
EXPERIMENT 11	2 Hours
Experimental study on performance of two stage reciprocating air compressor.	
EXPERIMENT 12	2 Hours
Experimental study on determination of Coefficient of Performance of refrigeration system	
EXPERIMENT 13	2 Hours
Experimental study on determination of Coefficient of Performance of Air-conditioning system.	

FOR FURTHER READING – SEMINAR – CPS **Total 30Hours**

:

Course Outcomes (COs)

After completion of the course, Student will be able to

1. Analyze the valve and port timing diagram .
2. Analyze the characteristic and performance of IC Engines.
3. Analyze the performance of Two Stage Air Compressor.
4. Conduct morse test in petrol engines.
5. Determine flash and fire point of various fuels.
6. Analyze the Performance of refrigeration system.

1702ME452	
MANUFACTURING TECHNOLOGY LABORATORY – II	
L T P C	
0 0 2 1	
PREREQUISITE :	
1. Workshop Practice Laboratory	
2. Manufacturing Technology I Lab	
COURSE OBJECTIVES:	
1. To learn the metal cutting theory and calculate the forces involved in it.	
2. To study construction, working and operations of centre, semi-automatic and automatic lathes.	
3. To provide the knowledge on construction, working of milling and gear cutting machines.	
4. To impart knowledge on construction, working and operations of reciprocating, drilling and boring machines.	
5. To provide knowledge on construction, working of broaching, grinding and few fine finishing processes.	
LIST OF EXPERIMENTS:	
1. Contour milling using vertical milling machine.	
2. Spur gear cutting in milling machine.	
3. Gear generation in hobbing machine.	
4. Gear generation in gear shaping machine.	
5. Horizontal surface grinding.	
6. Cylindrical grinding.	
7. Tool angle grinding with tool and Cutter Grinder.	
8. Measurement of cutting forces in Milling.	
9. Square Head Shaping.	
10. Hexagonal Head Shaping.	
11. Vertical surface grinding.	
12. Make a v-block using planner machine	
Total: 60 Hours	
ADDITIONAL EXPERIMENTS / INNOVATIVE EXPERIMENTS :	
1. Select proper Machines and list the sequence of operations to produce the components.	
2. External threaded shafts with key way, Hexagonal bolt and Hexagonal nut.	
COURSE OUTCOMES:	
After completion of the course, Student will be able to	
CO1	Produce of spur gear by using universal milling machine, gear hobbing machine, gear shaping machine.
CO2	Do the surface grinding operation using horizontal grinding machine, vertical grinding machine, cylindrical grinding machine
CO3	Produce a single point tool using tool and cutter grinder
CO4	Use the planner machine & vertical milling machine to perform contour, key way operation.
CO5	Measure the cutting force using milling tool dynamometer.
CO6	Do the square head shaping and hexagonal head shaping using shaper machine
REFERENCES:	
1. J. P. Kaushish, Manufacturing Processes, Prentice Hall India Learning Private Limited., New Delhi, 2013.	
2. SeropeKalpakjian and Steven R Schmid, Manufacturing Engineering and Technology, Pearson Education Limited, New Delhi, 2013.	
3. P. N. Rao, Manufacturing Technology- Metal Cutting and Machine Tools, Tata McGraw Hill Publishing Company Private Limited., New Delhi, 2013	
4. S. K. HajraChoudhury, Elements of Workshop Technology. Vol. II, Media Promoters & Publishers Private Limited., Mumbai, 2013.	
5. P.C Sharma, Manufacturing Technology - II, S. Chand & Company Limited. New Delhi, 2012.	
6. http://nptel.ac.in/courses/112105126	

1704GE451	LIFE SKILLS: VERBAL ABILITY	L	T	P	C
		0	0	2	0

PREREQUISITE:

Technical English – I and II

COURSE OBJECTIVES:

1. To help students comprehend and use vocabulary words in their day to day communication.
2. To apply appropriate reading strategies for interpreting technical and non-technical documents used in job-related settings.
3. To ensure students will be able to use targeted grammatical structures meaningfully and appropriately in oral and written production.
4. To enable the students to arrange the sentences in meaningful unit and to determine whether constructions rely on active or passive voice.
5. To apply the principles of effective business writing to hone communication skills.

UNIT I VOCABULARY USAGE

6 Hours

Introduction - Synonyms and Antonyms based on Technical terms – Single word Substitution – Newspaper, Audio and video listening activity.

UNIT II COMPREHENSION ABILITY

6 Hours

Skimming and Scanning – Social Science passages – Business and Economics passages – latest political and current event based passages – Theme detection – Deriving conclusion from passages.

UNIT III BASIC GRAMMAR AND ERROR DETECTION

6 Hours

Parallelism – Redundancy – Ambiguity – Concord - Common Errors – Spotting Errors – Sentence improvement – Error Detection FAQ in Competitive exams.

UNIT IV REARRANGEMENT AND GENERAL USAGE

6 Hours

Jumble Sentences – Cloze Test - Idioms and Phrases – Active and passive voice – Spelling test.

UNIT V APPLICATION OF VERBAL ABILITY

6 Hours

Business Writing - Business Vocabulary - Delivering Good / Bad News - Media Communication - Email Etiquette – Report Writing - Proposal writing – Essay writing– Indexing –Market surveying.

Total: 30 Hours

ASSESSMENT PATTERN

1. Two assignments (2 x 25 marks = 50 marks)
2. Pragmatic assessment (50 marks)

COURSE OUTCOMES:

After completion of the course, Student will be able to

- CO1: Use new words in their day to day communication.
CO2: Gather information swiftly while reading passages.
CO3: Students are proficient during their oral and written communication.
CO4: Rearrange the sentences and able to identify the voice of the sentence.
CO5: Students use their knowledge of the best practices to craft effective business documents

REFERENCES:

1. Arun Sharma and Meenakshi Upadhyav, How to Prepare for Verbal Ability and Reading Comprehension for CAT, McGrawHill Publication, Seventh Edition 2017.
2. R S Aggarwal and Vikas Aggarwal , Quick Learning Objective General English, S.Chand Publishing House, 2017.
3. Dr.K.Alex , Soft Skills, S.Chand Publishing House, Third Revise Edition, 2014.
4. Raymond Murphy, Essential English Grammar in Use, Cambridge University press, New Delhi, Third Edition, 2007.