



# RAGHU ENGINEERING COLLEGE

## AUTONOMOUS

(Approved by AICTE, New Delhi, Accredited by NBA (CIV,ECE,MECH,CSE), NAAC with 'A+' grade & Permanently Affiliated to JNTU-GV, Vizianagaram)

Dakamarri, Bheemunipatnam Mandal, Visakhapatnam Dist. – 531 162  
(A.P.)

Ph: +91-8922-248001, 248002 Fax: + 91-8922-248011

E-mail: [principal@raghuenggcollege.com](mailto:principal@raghuenggcollege.com) website: [www.raghuenggcollege.com](http://www.raghuenggcollege.com)

### RAGHU ENGINEERING COLLEGE (AUTONOMOUS)

#### VISAKHAPATNAM

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#### INSTITUTE VISION

Envisioning to be a world class technical institution by synergizing quality education with ethical values.

#### INSTITUTE MISSION

- To encourage training and research in cutting-edge technologies.
- To develop and strengthen strategic links with the industry.
- To kindle the zeal among the students and promote their quest for academic excellence.
- To encourage extra-curricular activities along with good communication skills.

#### QUALITY POLICY

RAGHU Engineering College underscores ethical values along with innovative teaching through an interactive, activity-based pedagogy; establishes the best of infrastructural facilities, inculcates engineering temper among the students through the use of the latest Information and Communication Technologies, and strives for an efficient, responsive and transparent administration in all areas.



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### Department of Computer Science and Engineering

#### VISION

To generate competent professionals to become part of the industry and research organizations at the national and international levels.

#### MISSION

To impart high quality professional training in undergraduate level with emphasis on basic principles of computer science and Engineering and to foster leading edge research in the fast-changing field.

To inculcate professional behavior, strong ethical values, innovative research capabilities and leadership abilities in the young minds so as to work with a commitment.

- M1: To impart high quality professional training at undergraduate level with emphasis on basic principles of computer science and Engineering and to foster leading edge research in the fast-changing field.
- M2: To inculcate innovative research capabilities and leadership abilities in the young minds so as to work with a commitment.
- M3: To inculcate professional behavior, strong ethical values in the young minds so as to work with a commitment.

#### PROGRAMME EDUCATIONAL OBJECTIVES(PEOs)

**PEO 1:** To produce graduates with a strong foundation in mathematics, science, engineering fundamentals, laboratory and work-based experiences to formulate and solve engineering problems in computer science engineering domains and shall have proficiency in implementation software tools and languages.

**PEO 2:** To progressively impart training to the students for success in various engineering positions within the core areas in computer science engineering, computational or adapting to the latest trends by learning themselves.

**PEO 3:** To produce graduates having the ability to pursue advanced higher studies and research. To have professional and communication skills to function as leaders and members of multidisciplinary teams in engineering and other industries with strong work ethics, organizational skills, teamwork, and understanding of the importance of being a thorough professional.



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### MAPPING OF MISSION STATEMENTS WITH PEOs

MS/PEO	PEO 1	PEO 2	PEO 3
MS 1	3	2	2
MS 2	2	3	2
MS 3	2	2	3

1-Slight , 2- Moderate, 3- Substantial



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PROGRAM OUTCOMES	
Graduates of Computer Science and Engineering Will:	
PO 1	<b>Engineering knowledge:</b> Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to solve complex engineering problems.
PO 2	<b>Problem analysis:</b> Identity, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO 3	<b>Design/development of solutions:</b> Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for public health and safety and the cultural, societal, and environmental concerns.
PO 4	<b>Conduct investigations of complex problems:</b> Use research-based knowledge and research methods, including design of experiments, analysis, interpretation of data, and synthesis of the information to provide valid conclusions.
PO 5	<b>Modern tool usage:</b> Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities with an understanding of the limitations.
PO 6	<b>The engineer and society:</b> Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO 7	<b>Environment and sustainability:</b> Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of and need for sustainable development.
PO 8	<b>Ethics:</b> Apply ethical principles and commit to professional ethics, responsibilities, and norms of the engineering practice.
PO 9	<b>Individual and team work:</b> Function effectively as an individual and as a member or leader in diverse teams and multidisciplinary settings.
PO 10	<b>Communication:</b> Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO 11	<b>Project management and finance:</b> Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's work as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO 12	<b>Life-long learning:</b> Recognize the need for, and have the preparation and ability to



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	engage in independent and life-long learning in the broadest context of technological change.
<b>PROGRAM SPECIFIC OUTCOMES (PSOs)</b>	
<b>PSO 1:</b> Apply the concepts and techniques of the Computer Science & Engineering branch and the Mathematical foundations in the significant domains to address the complex engineering problems.	
<b>PSO 2:</b> Employ emerging computer languages, computer networks, database management systems and platforms in developing innovative career prospects as an entrepreneur.	
<b>PSO 3:</b> Apply the knowledge of interdisciplinary skills, and domain-specific tools in working system processes to implement and deploy a quality-based software product to meet evolving needs.	

### Mapping of PEOs with POs and PSOs

PEO/PO	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
<b>PEO 1</b>	3	3	3	3	2	2	2	2		2		3	3	2	2
<b>PEO 2</b>	2	3	3	3	2	2	2	2	3	2	3	3	3	3	3
<b>PEO 3</b>	3	2	2	3	2	2	2	3	3	3	3	3	3	3	3

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(23HM101) MANAGERIAL ECONOMICS AND FINANCIAL ANALYSIS							
(Common to CSE, CSM, CSD, CSC, CSO)							
Programme & Branch	B.Tech -CSE	Sem	Category	L	T	P	Credit
Prerequisites:		4	Management Course-1	2	0	0	2
Preamble	The main objectives of the course is to make student						
<b>Course Objectives:</b> The course objectives of Theory of Computation are to discuss and make student familiar with the <ul style="list-style-type: none"><li>To inculcate the basic knowledge of microeconomics and financial accounting</li><li>To make the students learn how demand is estimated for different products, input-output relationship for optimizing production and cost</li><li>To Know the Various types of market structure and pricing methods and strategy</li><li>To give an overview on investment appraisal methods to promote the students to learn how to plan long-term investment decisions.</li><li>To provide fundamental skills on accounting and to explain the process of preparing financial statements.</li></ul>							
<b>Course Contents:</b>							
Unit-1	Managerial Economics  Introduction – Nature, meaning, significance, functions, and advantages. Demand-Concept, Function, Law of Demand - Demand Elasticity- Types – Measurement. Demand Forecasting- Factors governing Forecasting, Methods.			Contact Hours: 9			
Unit-2	Production and Cost Analysis  Introduction – Nature, meaning, significance, functions and advantages. Production Function– Least- cost combination– Short run and long run Production Function- Iso-quants and Iso-costs, Cost & Break-Even Analysis - Cost concepts and Cost behavior- Break-			Contact Hours: 9			



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	Even Analysis (BEA) - Determination of Break-Even Point (Simple Problems).	
<b>Unit-3</b>	<b>Business Organizations and Markets</b> Introduction – Forms of Business Organizations - Sole Proprietary - Partnership - Joint Stock Companies - Public Sector Enterprises. Types of Markets - Perfect and Imperfect Competition - Features of Perfect Competition Monopoly- Monopolistic Competition– Oligopoly-Price-Output Determination - Pricing Methods and Strategies	Contact Hours: 9
<b>Unit-4</b>	<b>Capital Budgeting</b> Introduction – Nature, meaning, significance. Types of Working Capital, Components, Sources of Short-term and Long-term Capital, Estimating Working capital requirements. Capital Budgeting– Features, Proposals, Methods and Evaluation. Projects – Pay Back Method, Accounting Rate of Return (ARR) Net Present Value (NPV) Internal Rate Return (IRR) Method (sample problems)	Contact Hours: 9
<b>Unit-5</b>	<b>Financial Accounting and Analysis</b> Introduction – Concepts and Conventions- Double-Entry Bookkeeping, Journal, Ledger, Trial Balance- Final Accounts (Trading Account, Profit and Loss Account and Balance Sheet with simple adjustments). Introduction to Financial Analysis - Analysis and Interpretation of Liquidity Ratios, Activity Ratios, Capital structure Ratios and Profitability.	Contact Hours: 9
		<b>Total Hours: 45</b>
<b>Text Books:</b>		





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1	Varshney & Maheswari: Managerial Economics, Sultan Chand.
2	Aryasri: Business Economics and Financial Analysis, 4/e, MGH.
<b>Reference Books:</b>	
1	Ahuja Hl Managerial economics Schand.
2	S.A. Siddiqui and A.S. Siddiqui: Managerial Economics and Financial Analysis, New Age International.
3	Joseph G. Nellis and David Parker: Principles of Business Economics, Pearson, 2/e, New Delhi.
4	Domnick Salvatore: Managerial Economics in a Global Economy, Cengage.
<b>Web References :</b>	
1	<a href="https://www.slideshare.net/123ps/managerial-economics-ppt">https://www.slideshare.net/123ps/managerial-economics-ppt</a>
2	<a href="https://www.slideshare.net/rossanz/production-and-cost-45827016">https://www.slideshare.net/rossanz/production-and-cost-45827016</a>
3	<a href="https://www.slideshare.net/darkyla/business-organizations-19917607">https://www.slideshare.net/darkyla/business-organizations-19917607</a>
4	<a href="https://www.slideshare.net/balarajbl/market-and-classification-of-market">https://www.slideshare.net/balarajbl/market-and-classification-of-market</a>
5	<a href="https://www.slideshare.net/ruchi101/capital-budgeting-ppt-59565396">https://www.slideshare.net/ruchi101/capital-budgeting-ppt-59565396</a>
6	<a href="https://www.slideshare.net/ashu1983/financial-accounting">https://www.slideshare.net/ashu1983/financial-accounting</a>
Preamble	<b>After completion of the course, students will be able to</b>
<b>COURSE OUTCOMES:</b>	
Upon completion of the course, students shall have ability to	
<b>CO 1</b>	Understand the fundamentals of Economics viz., Demand, Production, cost, revenue and markets
<b>CO 2</b>	Apply the Concept of Production cost and revenues for effective Business decision
<b>CO 3</b>	Analyze how to invest their capital and maximize returns
<b>CO 4</b>	Evaluate the capital budgeting techniques.
<b>CO 5</b>	Develop the accounting statements and evaluate the financial performance of business entity
<b>BT Mapped (Highest Level)</b>	
	Understanding
	Apply
	Analyze
	Evaluate
	Evaluate





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### Mapping of Cos with POs and PSOs

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO 1															
CO 2															
CO 3															
CO 4															
CO 5															
1 – Slight, 2 – Moderate, 3 – Substantial, BT- Bloom's Taxonomy															

### ASSESSMENT PATTERN – THEORY

TEST	Remembering (K1)%	Understanding (K2)%	Applying (K3)%	Analyzing (K4)%	Evaluating (K5)%	Creating (K6)%	Total%
MID-1	25	30	30	15			100
MID-2	25	30	30	15			100
SEE	30	35	25	5			100
*± 3% may be varied							

(Signature)  
Head of the Department  
(Seal/Stamp)

(Signature)  
Principal  
(Seal/Stamp)