

Course Content :

Unit – I

Introduction to Managerial Economics and demand Analysis: Definition of Managerial Economics and Scope-Managerial Economics and its relation with other subjects-Basic Economic Tools used in Managerial Economics-Concepts of Demand-Types-Determinants-Law of Demand its Exceptions-Elasticity of Demand-Types and Measurement- Law of Supply -Demand forecasting and Methods of demand forecasting.

Unit – II

Production and Cost Analysis: Production function- Law of Variable proportions- Iso-quants and Isocosts-Laws of Returns to Scale-Cobb-Douglas Production function-Economies of Scale-Cost Concepts- Fixed vs Variable Costs-Out of Pocket Costs vs Imputed Costs-Cost Volume Profit analysis-Determination of Break-Even Point (Simple Problems).

Unit – III

Introduction to Markets: Market Structures: Perfect Competition, Monopoly, Monopolistic and Oligopoly – Features – Price and Output Determination.

Theories of the Firm & Pricing Policies: Managerial Theories of firm: Marris and Williamson's models – Methods of Pricing: Limit Pricing, Market Skimming Pricing, Internet Pricing: Flat Rate Pricing, Usage sensitive, Transaction based pricing, Priority Pricing.

Unit – IV

Types of Business Organization and Business Cycles: Features and Evaluation of Sole Trader – Partnership – Joint Stock Company – State/Public Enterprises and their forms – Business Cycles – Meaning and Features – Phases of Business Cycles.

Unit – V

Introduction to Accounting and Capital Budgeting: Introduction to Double Entry Systems-Journal-Ledger-Trail Balance - Preparation of Financial Statements

Capital Budgeting: Meaning of Capital-Capitalization-Meaning of Capital Budgeting-Need for Capital Budgeting-Techniques of Capital Budgeting-Traditional and Modern Methods.

Textbooks:

1. Dr. B. Kuberudu and Dr. T. V. Ramana: Managerial Economics & Financial Analysis, Himalaya Publishing House 2011.
2. Dr. N. Appa Rao, Dr. P. Vijay Kumar: 'Managerial Economics and Financial Analysis', Cengage Publications, New Delhi – 2011
- 3.. Dr. A. R. Aryasri – Managerial Economics and Financial Analysis, TMH 2011

Reference Books :

1. V. Maheswari: Managerial Economics, Sultan Chand.
2. Suma Damodaran: Managerial Economics, Oxford 2011.
3. Prof. J.V.PrabhakaraRao, Prof. P. Venkatarao. 'Managerial Economics and Financial Analysis', Ravindra Publication.
4. Vanitha Agarwal: Managerial Economics, Pearson Publications 2011.
5. Sanjay Dhameja: Financial Accounting for Managers, Pearson.
6. Maheswari: Financial Accounting, Vikas Publications. 7. S. A. Siddiqui & A. S. Siddiqui: Managerial Economics and Financial Analysis, New Age International Publishers, 2012

Web Resources:

1. <https://economictimes.indiatimes.com/definition/law-of-supply>
2. <https://sites.google.com/site/economicsbasics/managerial-theories-of-the-firm>
3. <https://www.managementstudyguide.com/capitalization.htm>

Members of BoS

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Management Science
(Common to Civil, EEE ,ECE, CSE and IT)

Course Category	Humanities including Management	Credits	3
Course Type	Theory	Lecture-Tutorial-Practice	3 -0 -0
Prerequisites		Internal Assessment Semester End Examination Total Marks	40 60 100

Course Outcomes		Blooms Taxonomy Level
On successful completion of the course, the student will be able to		
CO 1	Understand management thoughts, motivational theories and types of organizations.	Understanding
CO 2	Apply the concepts of operations management, such as control charts, work study, materials management for smooth functioning of production units.	Application
CO 3	Understand the functional area of management.	Understand
CO 4	Apply techniques of project management in controlling cost.	Application
CO 5	Classify the management practices with reference to current business scenario.	Understanding

Contribution of Course Outcomes towards achievement of Program												
Outcomes: 1 – Low, 2 - Medium, 3 – High												
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO1	0	0	0	0	0	2	0	0	2	1	1	0
CO2	0	2	0	1	0	0	0	1	0	0	0	1
CO3	0	1	0	0	0	1	0	1	3	0	0	1
CO4	0	3	0	0	0	0	0	0	0	0	3	0
CO5	0	0	0	0	1	0	0	0	1	1	1	2

Course Content:

Unit I

Introduction to Management: Concept –nature and importance of Management – Functions of Management – Evolution of Management thought- Theories of Motivation -Designing organization structure- Principles of organization - Types of organization structure (line, line and staff, functional, matrix, committee, boundary less and inverted pyramid organization structures)

Unit II

Operations Management: Production Management-functions– Work study- Statistical Quality Control- Control charts P-chart, R-chart, and C-chart (Simple problems)- Material Management: Need for Inventory control- EOQ (simple problems), ABC analysis and Types of ABC analysis (HML, SDE, VED, and FSN analysis).

Unit III

Functional Management: Concept of HRM, HRD and PMIR- Functions of HR Manager- Job Evaluation and Merit Rating, Balanced Score Card–Team Dynamics/Working in Teams

Strategic Management: Vision, Mission, Goals, Strategy – Elements of Corporate Planning Process – Environmental Scanning – SWOT analysis Steps in Strategy Formulation and Implementation, Generic Strategy Alternatives, CSR Case studies

Unit IV

Project Management: (PERT/CPM): Development of Network – Difference between PERT and CPM Identifying Critical Path- Probability- Project Crashing (Simple Problems).

Unit V

Introduction to Contemporary Management Practices: Basic concepts of MIS, Just In Time (JIT) system, Total Quality Management (TQM), Lean Six Sigma, People Capability Maturity Model, Supply Chain Management, Evolution of Enterprise Systems, Business Process Outsourcing (BPO), Business Process Re-Engineering.

Text Books

1. Dr. P. Vijaya Kumar & Dr. N. Appa Rao, 'Management Science' Cengage, Delhi, 2012.
2. Dr. A. R. Aryasri, Management Science' TMH 2011.
3. Dr. PG. Ramanujam, BVR Naidu, PV Rama Sastry : Management Science Himalaya Publishing House, 2013.

REFERENCES

1. Koontz & Weihrich: 'Essentials of Management' TMH 2011
2. Seth & Rastogi: Global Management Systems, Cengage Learning, Delhi, 2011.
3. Robbins: Organizational Behaviors, Pearson Publications, 2011
4. Kanishka Bedi: Production & Operational Management, Oxford Publications, 2011.
5. Manjunath: Management Science, Pearson Publications, 2013.
6. Biswajit Patnaik: Human Resource Management, PHI, 2011.
7. Hitt and Vijaya Kumar: Strategic Management, Cengage Learning.
8. Management Shapers, Universities Press.
9. Philip Kotler & Armstrong: Principles of Marketing, Pearson publications.
10. Principles of management and administration, D. Chandra Bose, Prentice Hall of India Pvt. Ltd. New Delhi.

Web Resources:

1. <https://www.heflo.com/blog/business-management/small-business-organizational-structure-examples/>
2. http://currentnursing.com/nursing_management/material_management_ABC_VED_HML_analysis.html
3. <https://www.greycampus.com/blog/quality-management/a-brief-introduction-to-lean-and-six-sigma-and-lean-six-sigma>

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Marketing Management
(Common to Mech, CSE and IT)

Course Category	Humanities including Management	Credits	3
Course Type	Theory	Lecture-Tutorial-Practice	3 -0 -0
Prerequisites		Internal Assessment Semester End Examination Total Marks	40 60 100

Course Outcomes		Blooms Taxonomy Level
On successful completion of the course, the student will be able to		
CO 1	Understand the concepts of Marketing and Marketing Environment.	Understanding
CO 2	Analyze the consumer behavior and market segmentation in order to maintain better consumer relations and product positioning respectively.	Analyzing
CO 3	Make use of strategies and make decisions based on product life cycle and product mix concepts.	Application
CO 4	Understand the pricing effects and select a better distribution channel to reach the consumer.	Understanding
CO 5	Understand the promotional methods and importance.	Understanding

Contribution of Course Outcomes towards achievement of Program												
Outcomes: 1 – Low, 2 - Medium, 3 – High												
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO1	1	0	2	0	0	1	1	1	0	1	1	0
CO2	0	0	1	0	0	1	0	2	1	0	1	0
CO3	1	0	1	2	1	2	1	1	0	0	1	1
CO4	0	0	1	0	0	1	0	1	0	0	1	0
CO5	0	0	0	0	0	1	1	1	1	1	1	1

Course Content :

Unit -I

Introduction to Marketing: Market and Marketing, Functions, importance and problems of marketing – Marketing Environment, Approaches to the study of marketing; systems approach to marketing.

Unit -II

Consumer Behavior and CRM

Meaning and features and Factors influencing Consumer Behavior – Theories of Buying Behavior (Economic theories – Marshallian model, psychological theories, psycho-analytic theories, socio-cultural theories) – buying decision process - Customer Relationship Management.

Market Segmentation

Market Segmentation – Bases of Segmenting Consumer Market and Industrial Market – Target Marketing – Product differentiation – Product Positioning.

Unit -III

Product decision: New product development – Product mix – management of product life cycle – product strategies – product additions and deletions .

Branding, packaging and labeling – product differentiation – planned obsolescence.

Unit –IV Pricing and Channels of distribution:

Pricing: Pricing objectives – Pricing methods – Pricing strategies.

Channels of Distribution: Nature and types of marketing channels – wholesale distribution- retail distribution – direct marketing – selection of channels, Logistics, Third Party Service providers.

Unit –V Promotion : Nature and Importance of promotion – promotional methods of personal selling : objectives and function, Advertising objectives – Message content – media selection – Advertising agency – Advertising Budgets – Measuring Advertising effectiveness; Sales promotion Techniques – Social Media Promotion

Textbooks:

1. Marketing Management by Dr. K. Karunakaran – Himalaya Publishing House.
2. Marketing Management by S. A. Sherlekar – Himalaya Publishing House.

Reference Books :

1. Marketing Management by Philip Kotler.
2. Marketing Management by Priyanka Goel.
3. Marketing Management by Philip Kotler and Lane Keller
4. Marketing by L.Natarajan

Web Resources:

1. https://www.tutorialspoint.com/marketing_management/marketing_management_functions
2. <https://keydifferences.com/difference-between-branding-and-packaging.html>
3. <https://smallbusiness.chron.com/product-mix-639.html>

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Entrepreneurship
(Common to Civil, Mech, ECE, CSE and IT)

Course Category	Humanities including Management	Credits	3
Course Type	Theory	Lecture-Tutorial-Practice	3 -0 -0
Prerequisites		Internal Assessment Semester End Examination Total Marks	40 60 100

Course Outcomes		Blooms Taxonomy Level
On successful completion of the course, the student will be able to		
CO 1	Understand different Entrepreneurial traits.	Understanding
CO 2	Identify the financial institutions supporting entrepreneurship.	Applying
CO 3	Understand the functioning and problems faced by MSMEs (Micro Small Medium Enterprises)	Understanding
CO 4	Identify Entrepreneurial opportunities for women.	Applying
CO 5	Analyze different market, technical factors and prepare a project report based on guidelines.	Analyzing

Contribution of Course Outcomes towards achievement of Program												
Outcomes: 1 – Low, 2 - Medium, 3 – High												
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO1	1	0	0	0	0	1	0	1	2	1	3	3
CO2	0	0	0	0	0	1	0	0	0	2	3	1
CO3	0	0	0	0	0	1	1	2	1	1	0	3
CO4	0	0	0	0	0	1	0	3	1	1	0	3
CO5	0	1	1	0	0	1	2	1	1	3	3	3

Course Content :

Unit – I Introduction to Entrepreneurship

Introduction to Entrepreneurship: Definition of Entrepreneur Entrepreneurial Traits. Entrepreneur vs. Manager, Creating and Starting the venture: Sources of new ideas, methods of generating ideas, creative problem solving – Writing Business Plan, Evaluating Business Plans.

UNIT-II Institutional and financial support to Entrepreneurship

Institutional/financial support: Schemes and functions of Directorate of Industries, IFCI, District Industries Centers (DICs), Industrial Development Corporation (IDC), State Financial Corporation (SFCs), Small Scale Industries Development Corporations (SSIDCs). Khadi and Village Industries Commission (KVIC), Technical Consultancy Organization (TCO), Small Industries Service Institute (SISI), National Small Industries Corporation (NSIC), Small Industries Development Bank of India (SIDBI).(short answers only)

UNIT III Small and Micro Enterprises:

Importance, definitions – Policies and their support to MSMEs growth and growth strategies

Sickness in small business and remedies – small entrepreneurs in International business.

Unit – IV Women Entrepreneurship

Role & importance, profile of women Entrepreneur, problems of women Entrepreneurs, women Entrepreneurship Development in India.

Unit-V: Project Formulation and Appraisal

Preparation of Project Report –Content; Guidelines for Report preparation – Project Appraisal techniques –economic – Steps Analysis; Financial Analysis; Market Analysis; Technical Feasibility.

Textbooks:

1. Robert Hisrich, & Michael Peters: Entrepreneurship, TMH, 2009.
2. Dollinger : Entrepreneurship, Pearson, 2009.

Reference Books :

1. Vasant Desai, Dynamics of Entrepreneurial Development and Management, Himalaya Publishing House, 2009.
2. Harvard Business Review on Entrepreneurship, HBR Paper Back.
3. Robert J. Calvin: Entrepreneurial Management, TMH, 2009.
4. Gurmeet Naroola: The entrepreneurial Connection, TMH, 2009.
5. Bolton & Thompson: Entrepreneurs—Talent, Temperament and Techniques, Butterworth Heinemann, 2009.
6. Aruna Kaulgud: Entrepreneurship Management by, Vikas publishing house, 2009.
7. Essential of entrepreneurship and small business management by Thomas W. Zimmerer & Norman M. Scarborough, PHI-2009.

Web Resources:

1. <https://nptel.ac.in/courses/110105067/50>
2. <http://www.yourarticlelibrary.com/project-management/5-methods-of-project-appraisal-explained/40771>
3. <https://springhouse.in/government-schemes-every-entrepreneur/>

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Constitution of India
(Common to all branches)

Course Category	Humanities including Management	Credits	0
Course Type	Theory	Lecture-Tutorial-Practice	2 -0 -0
Prerequisites		Total Marks (Internal Assessment)	100

Course Outcomes		Blooms Taxonomy Level
On successful completion of the course, the student will be able to		
CO 1	Understand the evolution of Constitution of India	Understanding
CO 2	Make use of their Fundamental rights.	Application
CO 3	Understand the functioning of the Union Government	Understanding
CO 4	Understand the functioning of the State and local self Government.	Understanding
CO 5	Understand the value of Indian Constitution in functioning of the country.	Understanding

Contribution of Course Outcomes towards achievement of Program												
Outcomes: 1 – Low, 2 - Medium, 3 – High												
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO1	0	0	0	0	0	3	0	3	0	1	0	2
CO2	0	0	0	0	0	1	0	2	1	1	0	1
CO3	0	0	0	0	0	1	0	1	1	1	0	0
CO4	0	0	0	0	0	1	0	1	1	1	0	0
CO5	0	0	0	0	0	1	1	1	1	1	0	2

Course Content :

Unit – I

Introduction to Indian constitution: Meaning of the term constitution - History and development – Preamble of the Constitution – Constituent Assembly – The salient features of Indian Constitution.

Unit –II

Fundamental Rights and Directive principles of state policy: Individual and Collective Rights – Limitations of the fundamental Rights – Judicial Interpretation of Fundamental Rights.

Unit –III

Union Government: Union Legislature – Lok sabha and Rajya sabha (powers and functions) – President of India (powers and functions) – Prime minister of India (powers and functions) – Union Judiciary (supreme court powers and functions).

Unit – IV State and Local self Government:

State Government: State Legislature (Legislative Assembly / Vidhan Sabha, Legislative Council / Vidhan Parishad) – Powers and functions of state legislature – The Chief Minister of the state (powers and functions)

Local Self Government: Election commission of India (Powers and Functions)- The Union Public Service Commission (Powers and Functions)

Unit – V Working of the Indian Constitution

The values of the Indian Constitution and Ushering of Social Revolution in India – Nature and Role of Higher Judiciary in India – Amendments (Recent)

Reference Books :

1. 'Indian Polity' by Laxmikanth
2. 'Indian Administration' by Subhash Kashyap
3. 'Indian Constitution' by D.D. Basu
4. 'Indian Administration' by Avasti and Avasti

Web Resources:

1. <https://www.clearias.com/historical-background-of-indian-constitution/>
2. <https://www.civilserviceindia.com/subject/General-Studies/notes/functions-and-responsibilities-of-the-union-and-the-states.html>
3. https://www.tutorialspoint.com/indian_polity/indian_polity_how_constitution_works

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Professional Ethics and Human Values
(Common to all branches)

Course Category	Humanities including Management	Credits	0
Course Type	Theory	Lecture-Tutorial-Practice	2 -0 -0
Prerequisites		Total Marks (Internal Assessment)	100

Course Outcomes		Blooms Taxonomy Level
On successful completion of the course, the student will be able to		
CO 1	Understand different concepts in Professional Ethics and Human Values.	Understanding
CO 2	Apply ethical principles to resolve the problems that arise in work place.	Applying
CO 3	Make use of Engineers rights to fulfill their responsibilities.	Applying
CO 4	Understand the responsibility of an engineer in designing safety.	Understanding
CO 5	Analyze the social media accounts in order to create and maintain a positive digital footprint.	Analyzing

Contribution of Course Outcomes towards achievement of Program												
Outcomes: 1 – Low, 2 - Medium, 3 – High												
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO1	0	0	2	0	0	3	2	3	0	2	0	1
CO2	0	0	2	0	0	2	2	3	0	1	0	2
CO3	0	0	2	0	0	3	2	3	0	2	0	1
CO4	0	0	2	0	0	3	2	3	0	2	0	1
CO5	0	0	2	0	0	2	2	3	0	1	0	1

Course Content:

UNIT - I

Professional Ethics and Human values:

Ethics -History of Ethics-Types of Ethics, Professional Ethics and its forms - Morals, Values – Integrity – Civic Virtue –Respect for others – Living Peacefully – Caring – Sharing – Honesty –Courage – Value time – Co-operation – Loyalty- Collegiality-Commitment – Empathy – Self-confidence – Spirituality- Character.

UNIT - II

Engineering & Organization Ethics:

Engineering Ethics-Meaning & Purpose of Engineering Ethics- Consensus and Controversy –Work Place Ethics and Business Ethics –Ethics in HRM, Finance & Marketing – Ethical Theories-Meaning & Uses of Ethical Theories-Theories of moral Development-Kohlberg’s Theory – Gilligan’s Argument –Heinz’s Dilemma.

UNIT - III

Engineers Responsibilities and Rights:

Key Characteristics of Engineering Professionals – Professional Roles to be played by an Engineer - Ethical egoism-Collective bargaining-Confidentiality- Acceptance of Bribes/Gifts when is a Gift and a Bribe-examples of Gifts v/s Bribes-Whistle Blowing and its types-when should it be attempted-preventing whistle blowing.

UNIT - IV

Engineers’ Responsibility for Safety and Risk:

Concept of Safety-Types of Safety, Risk-Types of Risks, Voluntary v/s Involuntary Risk- Short term v/s Long term Consequences- Expected Probability- Reversible Effects- Threshold Levels for Risk- Delayed v/s Immediate Risk- Safety and the Engineer – Designing for Safety – Risk-Benefit Analysis-Accidents.

UNIT - V

Ethical issues in Social Media:

Social Media- Various Social Media Platforms: Google, Facebook, YouTube, Instagram -Social Media set-up and Uses-Ethical use of Social media-Effects of Social Media on Public- Social Media (vs) News- Social Media Fame and Reputation-Trolling, Harassing, and Hating on Social Media-Legal Aspects of Social Media.

REFERENCES :

1. "Engineering Ethics includes Human Values" by M.Govindarajan, S.Natarajan and V.S.SenthilKumar- PHI Learning Pvt. Ltd-2009.
2. "Professional Ethics and Morals" by Prof.A.R.Aryasri, Dharanikota Suyodhana- Maruthi Publications.
3. "Professional Ethics and Human Values" by A.Alavudeen, R.Kalil Rahman and M.Jayakumaran- Laxmi Publications
4. "Professional Ethics and Human Values" by Prof.D.R.Kiran-
5. "Indian Culture, Values and Professional Ethics" by PSR Murthy-BS Publication
6. "Ethics in Engineering" by Mike W. Martin and Roland Schinzinger -Tata McGraw- Hill -2003
7. "Engineering Ethics" by Harris, Pritchard and Rabins, CENGAGE Learning, India Edition, 2009.

Web Resources:

1. <https://study.com/academy/lesson/ethical-issues-in-internet-social-media-marketing.html>
2. https://www.tutorialspoint.com/engineering_ethics/engineering_ethics_rights_of_engineers
3. <https://link.springer.com/article/10.1007/s11948-997-0039-x>

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Intellectual Property Rights and Patents
(Common to all branches)

Course Category	Humanities including Management	Credits	0
Course Type	Theory	Lecture-Tutorial-Practice	2 -0 -0
Prerequisites		Total Marks (Internal Assessment)	100

Course Outcomes		Blooms Taxonomy Level
On successful completion of the course, the student will be able to		
CO 1	Classify Intellectual Property Rights and explain basic concepts of Intellectual Property Rights.	Understanding
CO 2	Appraise the role of Copyright Registration process and evaluate legal requirements for Semi Conductor Chip Protection	Evaluation
CO 3	Identify relationship between Product Patent and Process Patent and how patent will apply for new situations (Inventions).	Application
CO 4	Analyze trade mark registration process and distinguished between different Trademarks.	Analysis
CO 5	Explain Employee Confidentiality Agreement and summarize Trade Secret Litigation Process.	Understanding

Contribution of Course Outcomes towards achievement of Program												
Outcomes: 1 – Low, 2 - Medium, 3 – High												
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO1	2	2	2	2	2	1	2	1	1	1	1	1
CO2	0	1	0	0	0	0	2	3	0	0	2	2
CO3	0	0	0	0	0	0	2	2	0	0	3	2
CO4	0	0	0	0	0	0	0	3	0	0	2	1
CO5	0	0	0	0	0	0	0	3	0	0	2	1

Course Content :

Unit I

Introduction to Intellectual Property Law – Evolutionary past – Intellectual Property Law Basics - Innovations and Inventions of Trade related Intellectual Property Rights – Agencies Responsible for Intellectual Property Registration –Over use or Misuse of Intellectual Property Rights - Compliance and Liability Issues.

Unit II

Introduction to Copyrights – Principles of Copyright – Subject Matters of Copyright – Rights Afforded by Copyright Law –Copyright Ownership – Transfer and Duration– Copyright Formalities and Registration – Limitations – Infringement of Copyright – Semiconductor Chip Protection Act.

Unit III

Introduction to Patent Law – Rights under Patent Law – Patent Requirements – Product Patent and Process Patent- Ownership and Transfer – Patent Application Process and Granting of Patent – Patent Infringement and Litigation – International Patent Law – Double Patenting.

Unit IV

Introduction to Trade Mark – Trade Mark Registration Process – Post registration procedures – Trade Mark maintenance – Transfer of rights – Inter parties Proceedings – Infringement – Dilution of Ownership of Trade Mark – Likelihood of confusion.

Unit V

Introduction to Trade Secrets – Maintaining Trade Secret – Physical Security – Employee Access Limitation – Employee Confidentiality Agreement – Trade Secret Law – Unfair Competition – Trade Secret Litigation – Breach of Contract – Applying State Law.

Reference Books :

1. Deborah E. Bouchoux: "Intellectual Property". Cengage learning, New Delhi.
2. Kompal Bansal & Parishit Bansal "Fundamentals of IPR for Engineers", BS Publications (Press).
3. Prabhuddha Ganguli: 'Intellectual Property Rights' Tata Mc-Graw – Hill, New Delhi.
4. Richard Stim: "Intellectual Property", Cengage Learning, New Delhi.
5. R. Radha Krishnan, S. Balasubramanian: "Intellectual Property Rights", Excel Books. New Delhi.
6. M. Ashok Kumar and Mohd. Iqbal Ali: "Intellectual Property Right" Serials Pub.

Web Resources:

1. <https://www.jakemp.com/en/knowledge-centre/briefings/introduction-to-patents>
2. <https://www.legalzoom.com/knowledge/trademark/topic/trademark-service-mark-definition>
3. <http://www.copyrights.org/copyright-resources/introduction-to-copyright/>

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Essence of Indian Traditional Knowledge
(Common to all branches)

Course Category	Humanities including Management	Credits	0
Course Type	Theory	Lecture-Tutorial-Practice	2 -0 -0
Prerequisites		Total Marks (Internal Assessment)	100

Course Outcomes		Blooms Taxonomy Level
On successful completion of the course, the student will be able to		
CO 1	Understand the significance of Indian Traditional Knowledge.	Understanding
CO 2	Classify the Indian Traditional Knowledge	Analysis
CO 3	Compare Modern Science with Indian Traditional Knowledge system.	Evaluating
CO 4	Analyze the role of Government in protecting the Traditional Knowledge	Analysis
CO 5	Understand the impact of Philosophical tradition on Indian Knowledge System.	Understanding

Contribution of Course Outcomes towards achievement of Program												
Outcomes: 1 – Low, 2 - Medium, 3 – High												
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO1	0	1	2	0	0	3	0	1	0	2	0	0
CO2	0	0	2	0	0	2	0	2	0	0	0	0
CO3	0	0	2	0	0	3	0	1	1	2	2	1
CO4	0	0	2	0	0	2	0	2	0	0	0	0
CO5	0	0	1	0	0	3	0	1	0	3	0	1

Course Content :

Unit I

Introduction to Traditional Knowledge: Define Traditional Knowledge- Nature and Characteristics- Scope and Importance- kinds of Traditional Knowledge- The historical impact of social change on Traditional Knowledge Systems- Value of Traditional knowledge in global economy.

Unit II

Basic structure of Indian Knowledge System: Astadash Vidya- 4 Ved - 4 Upaved (Ayurved,Dhanurved,GandharvaVed&SthapthyaAdi),6vedanga(Shisha,Kalppa,Nirukha,Vyakaran,Jyothisha& Chand),4upanga(Dharmashastra,Meemamsa,purana&Tharka Shastra).

Unit III

Modern Science and Indian Knowledge System-Indigenous Knowledge, Characteristics- Yoga and Holistic Health care-cases studies.

Unit IV

Protection of Traditional Knowledge: The need for protecting traditional knowledge -Significance of Traditional knowledge Protection-Role of government to harness Traditional Knowledge.

Unit V

Impact of Traditions: Philosophical Tradition (Sarvadarshan) Nyaya, Vyshepec, Sankhya, Yog, Meemamsa, Vedantha, Chavanka, Jain & Boudh - Indian Artistic Tradition - Chitra kala, Moorthi kala, Vasthu kala , Sthapthya, Sangeetha, Nruthya Yevam Sahithya

Reference Books :

1. Traditional Knowledge System in India, by Amit Jha, 2009.
2. Traditional Knowledge System and Technology in India by Basanta Kumar Mohanta and Vipin Kumar Singh, Pratibha Prakashan 2012.
3. Sivaramakrishnan (Ed.), Cultural Heritage of India-course material, Bharatiya Vidya
4. Swami Jitatmanand, Holistic Science and Vedant, Bharatiya Vidya Bhavan
5. Yoga Sutra of Patanjali, Ramakrishna Mission, Kolkata.
6. Pramod Chandra, India Arts, Howard Univ. Press, 1983.
7. Krishna Chaitanya, Arts of India, Abhinav Publications, 1987.

Web Resources:

1. https://www.wipo.int/wipo_magazine/en/2017/01/article_0004.html
2. <http://iks.iitgn.ac.in/wp-content/uploads/2016/01/Indian-Knowledge-Systems-Kapil-Kapoor.pdf>
3. https://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_21/wipo_grtkf_ic_21_ref_facilitators_text.pdf

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