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Learn Today to Lead Tomorrow

CLARIFICATION FOR METRIC NO. 1.3.2

NOTIFICATION AND SYLLABI OF VALUE ADDED COURSES FOR ACADEMIC YEAR 2020-21

मङ्गलायतन विश्वविद्यालय
॥ विश्वं ह्लादे प्रतिष्ठितम् ॥

Mangalayatan University

33rd Milestone, Aligarh-Mathura Highway

Beswan, Aligarh- 202146 (U.P.) India

Metric No. 1.3.2

Notification and Syllabi of Value-Added Courses for Academic Year 2020-21

INDEX

Notification for Offered Value Added Courses		
S.No.	**Particular**	**Page No.**
1	Notification of offered Value Added Courses in academic year 2020-21	1
Syllabi of Value Added Courses		
S. No.	**Course Name**	**Page No.**
1	Basic Biotechnology	3
2	Basics of Financial Management	4
3	Biostatics	5
4	Cloud Computing	7
5	Computer Organization and Architecture	8
6	Content Writing	9
7	Cyber Security	11
8	Divorce by Mutual Consent: A Step by Step Guide	12
9	General Plant Protection	13
10	Green Chemistry	16
11	How to Work with a Senior Advocate	18
12	Intellectual Property Rights	19
13	Introduction to Accounting	21
14	Introduction to Indian Music	22
15	Introduction to Mass Communication	23
16	Novel Drug Delivery Systems	25
17	Pharmaceutical Packaging	26
18	Photography	27
19	Plant Tissue Culture	29
20	Professional Language Skills and Grammar Composition	30
21	Renewable Energy Resources	31
22	Renewable Energy Sources	32
23	Right to Information (RTI) and You: Practice and Procedure Made Easy	33
24	Solid Waste Management	34
25	Sustainable Development	36
26	Tabla Vaadan	37
27	Total Quality Management	38
28	TV Anchoring and Radio Jockeying	39
29	Yogic Practices and Health Education	41

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Ref: MU/RO/Value Added Courses/2020-21/ Dated: August 17, 2020

Notice

In view of the recommendations received from Board of Studies of the various institutes/Departments of the university, the university has decided to offer the following value-added courses for the academic years 2020-21. The recommendation of BoS will be placed for the approval of the Academic Council in its next meeting.

S. No.	Course Name	Offering Department/Institute
1	Tabla Vaadan	Department of Visual & Performing Arts
2	Introduction to Indian Music	Department of Visual & Performing Arts
3	Cloud Computing	Department of Computer Science & Engineering
4	Cyber Security	Department of Computer Science & Engineering
5	Computer Organization and Architecture	Department of Electrical & Electronics Engineering
6	Renewable Energy Sources	Department of Electrical& Electronics Engineering
7	Total Quality Management	Department of Mechanical Engineering
8	Renewable Energy Resources	Department of Mechanical Engineering
9	Green Chemistry	Institute of Applied Sciences
10	Intellectual Property Rights	Institute of Applied Sciences
11	Introduction to Mass Communication	Institute of Education & Research
12	Basic Biotechnology	Department of Biotechnology & Life Sciences
13	Plant Tissue Culture	Department of Biotechnology & Life Sciences
14	Yogic Practices and Health Education	Institute of Education & Research
15	Solid Waste Management	Department of Civil Engineering
16	Divorce by Mutual Consent: A Step by Step Guide	Institute of Legal Studies & Research
17	Right to Information (RTI) and You: Practice and Procedure Made Easy	Institute of Legal Studies & Research
18	Content Writing	Department of Journalism Mass Communication
19	Photography	Department of Journalism Mass Communication
20	TV Anchoring and Radio Jockeying	Department of Journalism Mass Communication

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21	General Plant Protection	Department of Agriculture
22	Biostatics	Department of Pharmacy
23	Pharmaceutical Packaging	Department of Pharmacy
24	Novel Drug Delivery Systems	Department of Pharmacy
25	Professional Language Skills and Grammar Composition	Institute of Education & Research
26	Sustainable Development	Institute of Education & Research
27	Basics of Financial Management	Institute of Business Management
28	Introduction to Accounting	Institute of Business Management
29	How to Work with a Senior Advocate	Institute of Legal Studies & Research

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CC:

Hon'ble Vice Chancellor for kind information

All Deans/Directors/HoDs/Faculty/Staff/Students

2020-21

Value Added Course

Department of Bio-Technology

Course Name: Basic Biotechnology | **Total Contact Hours**

Course Code: BSV-0009 | **30 Hours**

Objective of the Courses: To auaint students with various fields of Biotechnology and their applications

Unit-I History & Introduction to Biotechnology, What is Biotechnology, Definition of Biotechnology, Traditional and Modern Biotechnology, Branches of Biotechnology.

Unit–II Plant, Animal Biotechnology, Marine Biotechnology, Agriculture, Healthcare, Industrial Biotechnology, Pharmaceutical Biotechnology, Environmental Biotechnology.Biotechnology Research in India. Biotechnology Institutions in India (Pub lic and Private Sector) Biotech Sucess Stories Biotech Policy Initiatives Biotechnology in context of Developing World Public Perception of Biotechnology

Unit- III Applications of Biotechnology in Agriculture : GM Food, GM Papaya, GM Tomato, Fungal and Insect Resistant Plants BT Crops, BT Cotton and BT Brinjal Pros and Cons Biotechnological applications in Crop and Livestock Improvements Modifications in Plant Quality Golden Rice, Molecular Pharming, Plant Based Vaccines Ethics in Biotechnology and IPR.

Unit –IV Biotechnological applications in enhancement of Food Quality Unit Operation in Food Processing Quality Factors in Preprocessed Food Food Deterioration and its Control Rheology of Food Products Microbial role in food products Yeast, Bacterial and other Microorganisms based process and products Modern Biotechnological Regulatory Aspects in Food Industries Biotechnology and Food - Social Appraisal.

Unit- V Defination, Applications of Fermentation Technology Microbial Fermentations Overview of Industrial Production of Chemicals (Acetic Acid, Citric Acid and Ethanol), Antibiotics, Enzymes and Beverages.

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Institute of Business Management

Course Name: Basics of Financial Management | **Total Contact Hours**
Course Code: MGV-0002 | **35Hours**

Unit-I: Nature of Financial Management

Scope of Finance; Finance Function; Finance Manager's role; Role of Finance Manager; Financial Goal: Profit Maximization V/s Wealth Maximization.

Unit-II: Cost of Capital, Operating, Financial Leverage and Combined Leverage

The concept of opportunity cost of capital; Cost of Debt, Preference Capital and Equity Capital; The weighted Average Cost of Capital; Financial, operating and Combined Leverage- Concept and Measurement

Unit-III: Management of Working Capital

Meaning, significance and types; Methods of assessing Working Capital requirements; Sources of Working Capital and factors affecting it;

Unit IV- Inventory Management

ABC Analysis, EOQ Model, Safety Stock, Lead Time, etc.

Books Recommended/Suggested Reading:

1. Van Horne J.C: Financial Management & Policy; Prentice Hall of India, New Delhi.
2. Van Horne J.C: Fundamentals of Financial Management; Prentice Hall of India, New Delhi.
3. Khan M.Y & Jain P.K.: Financial Management, Text & Problems; Tata McGraw Hill, New Delhi.
4. Prasanna Chandra: Financial Management- Theory & Practice; Tata McGraw Hill, New Delhi.
5. Pandey I.M.: Financial Management; Vikas Publishing House, New Delhi.

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Value Added Course

Department of Pharmacy

Course Name: Biostatistics **Total Contact Hours**

Course Code: PCV- 0001 **30Hours**

Unit 1: Introduction & Tabulation of Data **7 Hours**

1. Meaning, definition & characteristics of statistics, Importance of the study of statistics, Branches of statistics, Statistics and health science, Parameters and Estimates, Variables and their types, Measurement scales.
2. Basic principles of graphical representation, Types of diagrams – histograms, frequency polygons, smooth frequency polygon, cumulative frequency curve, Normal probability curve.

Unit II: Measures of Central Tendency & Measures of Dispersion **7 Hours**

1. Need for measures of central Tendency, Definition and calculation of Mean – ungrouped and grouped, interpretation and calculation of Median-ungrouped and grouped, Meaning and calculation of Mode, Geometric mean & Hormonic mean, Guidelines for the use of various measures of central tendency.
2. Range, mean deviation, standard deviation & variance.

Unit III: Probability, Correlation & regression **6 Hours**

1. Meaning of probability of standard distribution, the binominal distribution, the normal distribution, Divergence from normality – skewness, kurtosis.
2. Ccorrelation coefficient, linear regression, regression equation & their significance

Unit IV: Tests of significance & Analysis of Variance **6 Hours**

1. Testing of Hypotheses, Level of significance, Degrees of freedom, Chi-square test, test of Goodness of fit, Fischer's test & student t-test.
2. Analysis of variance (ANOVA), what is ANOVA? Basic principle of ANOVA, ANOVA technique, Analysis of Co variance (ANACOVA)

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Unit V: Sampling **4 Hours**

Definition, types- simple, random, stratified, cluster and double sampling. Need for sampling - Criteria for good samples, Application of sampling in community, Procedures of sampling and sampling designs errors.

Recommended Books:

1. Research Methodology and Biostatistics - 1st Edition – Elsevier
2. Biostatistics – 2nd Edition – Elsevier
3. Practical Biostatistics – 1st Edition - Elsevier
4. Biostatistics For Dummies
5. Statistical Methods for Disease Clustering. Toshiro Tango.
6. *Mahajan's Methods in Biostatistics for Medical Students and Research Workers.* First Edition.
7. A *Textbook* of "Research Methodologies and *Biostatistics*".
8. Pharmaceutical statistics- Practical and clinical applications, Sanford Bolton, publisher Marcel Dekk er Inc. New York.
9. Fundamental of Statistics – Himalaya Publishing House- S.C.Guptha.
10. Design and Analysis of Experiments –PHI Learning Private Limited, R. Pannerselvam,
11. Design and Analysis of Experiments – Wiley Students Edition, Douglas and C. Montgomery.

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2020-21

Value Added Course
Department: Computer Science Engineering

Course Name: Cloud Computing
Course Code: CSV- 0006

Total Contact Hours
30Hours

Unit-I Introduction- Objectives, From collaborative to the Cloud – A short history Client – Server Computing, Peer-to-Peer Computing, Distributed Computing, Collaborative Computing, Cloud Computing, Functioning of Cloud Computing, Cloud Architecture, Cloud Storage, Cloud Services, Industrial Applications.

Unit-II Business Values, Introduction-Objectives, Service Modeling, Infrastructure Services, Platform Services, Software Services - Software as service modes- Massively scaled software as a service- Scale of Economy, Management and Administration.

Unit-III Inside Cloud Computing- Introduction- Objectives, Feeling Sensational about Organization, Making Strategy Decisions- Governance Issues- Monitoring Business Processes- IT Cost Management,

Unit- IV Cloud Service Administration- Service Level Agreements and Monitoring-Support Services- Accounting Services, Resource Management- IT Security- Performance Management- Provisioning- Service Management, Untangling Software Dependencies.

Unit- V Cloud Computing Technology- Introduction-Objectives, Clients – Mobile – Thin – Thick, Security - Data Linkage - Offloading Work - Logging - Forensics - Development – Auditing, Network- Basic Public Internet- The Accelerated Internet- Optimised Internet Overlay- Site-to-Site VPN- Cloud Providers- Cloud Consumers - Pipe Size- Redundancy, Services- Identity- Integration- Mapping- Payments- Search.

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2020-21

Value Added Course

Department of Electrical & Electronics Engineering

Course Name: Computer Organization and Architecture **Total Contact Hours**
Course Code : ECV-0001 **30 Hours**

Unit-I: Introduction Functional units of digital system and their interconnections, buses, bus architecture, types of buses and bus arbitration. Register, bus and memory transfer. Processor organization, general registers organization, stack organization and addressing modes.

Unit-II: Arithmetic and logic unit Look ahead carries adders. Multiplication: Signed operand multiplication, Booths algorithm and array multiplier. Division and logic operations. Floating point arithmetic operation, Arithmetic & logic unit design. IEEE Standard for Floating Point Numbers

Unit-III : Control Unit Instruction types, formats, instruction cycles and sub cycles (fetch and execute etc), micro operations, execution of a complete instruction. Program Control, Reduced Instruction Set Computer, Pipelining. Hardwire and micro programmed control: micro programme sequencing, concept of horizontal and vertical microprogramming.

Unit-IV: Memory Basic concept and hierarchy, semiconductor RAM memories, 2D & 2 1/2D memory organization.ROM memories. Cache memories: concept and design issues & performance, address mapping and replacement Auxiliary memories: magnetic disk, magnetic tape and optical disks Virtual memory: concept implementation

Unit-V: Input / Output Peripheral devices, I/O interface, I/O ports, Interrupts: interrupt hardware, types of interrupts and exceptions. Modes of Data Transfer: Programmed I/O, interrupt initiated I/O and Direct Memory Access., I/O channels and processors. Serial Communication: Synchronous & asynchronous communication, standard communication interfaces.

Books:

1. Computer System Architecture - M. Mano
2. John P. Hayes, Computer Architecture and Organization, Tata McGraw Hill, Third Edition, 1998.
Reference books
3. William Stallings, Computer Organization and Architecture-Designing for Performance, Pearson Education, Seventh edition, 2006.
4. Behrooz Parahami, "Computer Architecture", Oxford University Press, Eighth Impression, 2011.

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2020-21

Value Added Course

Department Journalism & Mass Communication

Course Name- Content Writing | **Total Contact Hours**
Course Code: JMV-0002 | **30Hours**

Objectives to the Courses :

1. Students will be able to writing content, drafting and editing.
2. Students will be able to boost up self-vocabulary, knowledge.
3. Students will be able to understand importance of verb.
4. Students will be able to learn different types of techniques, software and publishing.

Unit I- Introduction to Content Writing

How to take maximum advantage of the course, Learn to Submit Assignments, Learn Google Drive, Content Writing Basic, Effective Content Writing Process, Prewriting, Drafting, Sentence Construction, Paragraph Building, Revising, Editing & Proofreading, Publishing.

Unit II- Boost Your Vocabulary

Tips to build your Vocabulary, Usage of Words, Understanding Technical Terms in a Particular Domain, Using Thesaurus, Reading List, Google tools.

Unit III- Avoid Common Grammar Errors in Your Writing

Sentence Construction, Subjects Verb Agreement, Fragments, Run-on Sentences, Punctuations, Wordy Sentences, Sentence Variety, Awkward Sentences, Verb Power,
Shift-in-time, Pronoun Problems, Capitalization, Parallel Structure, Modifiers.

Unit IV- Learn Writing Tools, Tips, & Techniques

Grammar, Copyscape, Ginger, Hemingway App, Internet Research Skills, Writing Hacks, Learn Technical Writing.

UnitV- Non-fiction Creative Writing Skills

Introduction to Digital Advertising, Copywriting basic, Web Content Writing, Writing compelling Ad Copy/Headlines/Subtitles, Writing impressive introductory lines/conclusions Writing impressive Sales Proposal/Marketing content, Blogging skills, Persuasive writing style, Idea Generation Tools, Social Media/Viral Content Development
writing effective email/newsletter/Google Ads/Facebook Ad/Landing Pages Content, Learn Fiction Writing: Master the art of Storytelling.

Unit VI- Publish Your Book

Drafting a Book, Cover Page/Back Page Design, Formatting for Print/Mobile/Desktop/Tablet Self-publishing, Approaching a Publisher, Setting Your Royalty Payment, Promoting Your

14-1-22

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Book.

Teaching Hours-30

UNIT-1 -6 Hrs.

1 Hour- How to take maximum advantage of the course

1 Hour-Learn to Submit Assignments, Learn Google Drive, Content Writing Basic,

2 Hours-Content Writing Basic, Effective Content Writing Process

2 Hour- Writing Process, Prewriting, Drafting, Sentence Construction, Paragraph Building, Revising, Editing & Proofreading, Publishing.

UNIT-2, 3-8 Hrs.

3 Hour- Tips to build your Vocabulary, Usage of Words, Understanding Technical Terms in a Particular Domain, Using Thesaurus, Reading List, Google tools.

2 Hour- Sentence Construction, Subjects Verb Agreement, Fragments, Run-on Sentences, Punctuations,

2 Hour- Wordy Sentences, Sentence Variety, Awkward Sentences, Verb Power, Shift-in-time

1 Hour- , Pronoun Problems, Capitalization, Parallel Structure, Modifiers.

UNIT-4-8 Hrs.

2 Hour- Grammar, Copyscape, Ginger, Hemingway App, Internet Research Skills, Writing Hacks, Learn Technical Writing.

2 Hour- Introduction to Digital Advertising, Copywriting basic, Web Content Writing,

2 Hour- Writing compelling Ad Copy/Headlines/Subtitles, Writing impressive introductory lines/conclusions,Writing impressive

2 Hour- Sales Proposal/Marketing content, Blogging skills, Persuasive writing style, Idea Generation Tools, Social Media/Viral Content Development

UNIT-5, 6-8 Hrs.

3 Hour- Drafting a Book, Cover Page/Back Page Design, Formatting for Print/Mobile/Desktop/Tablet

3 Hour- Self-publishing, Approaching a Publisher, Setting Your Royalty Payment, Promoting Your Book.

2Hour- writing effective email/newsletter/Google Ads/Facebook Ad/Landing Pages Content, Learn Fiction Writing: Master the art of Storytelling.

14-1-22

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Department: Computer Science Engineering

Course Name: Cyber Security
Course Code: CSV- 0008

Total Contact Hours
30Hours

Unit –I Overview of Cyber Security, Internet Governance – Challenges and Constraints, Cyber Threats:- Cyber Warfare-Cyber Crime-Cyber terrorism-Cyber Espionage, Need for a Comprehensive Cyber Security Policy, Need for a Nodal Authority, Need for an International convention on Cyberspace.

Unit -II
Cyber Security Vulnerabilities-Overview, vulnerabilities in software, System administration, Complex Network Architectures, Open Access to Organizational Data, Weak Authentication, Unprotected Broadband communications, Poor Cyber Security Awareness. Cyber Security Safeguards- Overview, Access control, Audit.

Unit- III
Introduction, Basic security for HTTP Applications and Services, Basic Security for SOAP Services, Identity Management and Web Services, Authorization Patterns, Security Considerations, Challenges.

Unit- IV
Intrusion, Physical Theft, Abuse of Privileges, Unauthorized Access by Outsider, Malware infection, Intrusion detection and Prevention Techniques, Anti-Malware software, Network based Intrusion detection Systems, Network based Intrusion Prevention Systems, Host based Intrusion prevention Systems, Security Information Management, Network Session Analysis, System Integrity Validation.

Unit- V
Introduction to Cryptography, Symmetric key Cryptography, Asymmetric key Cryptography, Message Authentication, Digital Signatures, Applications of Cryptography. Overview of Firewalls- Types of Firewalls, User Management, VPN Security Security Protocols: - security at the Application Layer- PGP and S/MIME, Security at Transport Layer- SSL and TLS, Security at Network Layer-IPSec.

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2020-21

Value Added Course
Institute of Legal Studies and Research

Course Name- Divorce By Mutual Consent: A Step By Step Guide **Total Contact Hours**
Course Code: LMV-0007 **36 Hours**

A divorce is an emotionally draining process, involving issues beyond the relationship between spouses; and it gets increasingly complex when Courts get involved. Even in cases where couples want divorce with mutual consent, the process becomes time-consuming and daunting, owing to various factors. Young lawyers who aspire to work in the field must know the methods of mediation to make the whole process smooth for their clients.

This course provides the step-by-step procedure involved in obtaining a divorce by mutual consent. It further substantiates mediation as a beneficial and objective mechanism that can be implemented to obtain a divorce. Lawyers, legal counsel and common people will benefit from the course as it provides a strong foundation along with compelling case studies, such that they are able to advice or apply your knowledge when required.

COURSE OUTCOME

After completing this course, you will be able to:

Explain the background and concept of a 'marriage' and 'divorce', and define the terms under it

Discuss various family laws and conditions that need to be fulfilled to file for a divorce by mutual consent

Facilitate the mediation mechanism as an effective method to resolve disputes

COURSE OUTLINE

- Module 1 – Concept of Marriage and Divorce
- Module 2 – Divorce by Mutual Consent
- Module 3 – Essentials of Divorce by Mutual Consent
- Module 4 – Jurisdiction and Procedure
- Module 5 – Appeal
- Module 6 – Ancillary Proceedings
- Module 7 – Mediation in Divorce Proceedings
- Module 8 – Case Studies
- Certification Exam/ Assessment

Registrar 14-1-32
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AGO-0001 GENERAL PLANT PROTECTION (3; 2+1)

Objectives: To acquaint the students with the basics of plant protection.

Contents: Definition, importance and scope of Entomology and Plant Pathology in agriculture. Abundance, distribution and place of insect pests in animal kingdom. Metamorphosis, life history, ecological adaptations, general types of mouth parts, their modifications. Damage caused by important insect pests, classification and control. The course also comprises description of different biotic constraints, their classification, description of major diseases, their causal organisms and means of control.

Practical: General organization of the body of cockroach, structure of the head, the thorax and the abdomen, types of the mouth parts in cockroach and bug. Types of the legs and the wings. Students will be given also practical work on preparation of general purpose media, sterilization techniques, collection of diseased samples and methods of isolation and identification of various disease causal agents.

Textbooks:

Agrios, G.N., 1997. Plant Pathology (IVth Edition). Academic Press. Inc. San Diego.
Nayar, K.K., T.N. Anwothkrishan and B.R. David: General and Applied Entomology
V.B. Awasthi: Introduction to General and Applied Entomology.

Reference books:

K M Chandiwala; 2010. An Introduction to Plant Pathology (Ist Edition). Anmol Publications PVT. LTD
K M Chandiwala; 2010. Spreading of Diseases in Plants (Ist Edition). Anmol Publications PVT. LTD
K M Chandiwala; 2010. Recent Advances in Plant Pathology Series (Ist Edition). Anmol Publications PVT. LTD
S. Sundara Rajan; 2005. Tools and Techniques of microbiology. Anmol Publications PVT. LTD
Boror and Daylong: Introduction to Entomology.

14-1-22
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Department of Agriculture

Course Name- General Plant Protection (3; 2+1) **Total Contact Hours**
Course Code: AGO-0001 **35 Hours**

Unit	Learning output	Learning outcome	Methodology
1	Importance and scope of plant protection. The concepts of pests, predator, parasites, parasitoids and pathogens.	Students familiarized with important concept of plant protection and history and some threats happened due to pests.	Lectures 2
2	Introduction to plant pests: insects, vertebrates, diseases, weeds, parasitic plants, nematodes and mites.	Students make familiar with pest and diseases	Lectures 1
3	Highlights of important insect orders (such as Orthoptera, Isoptera, Hemiptera, Lepidoptera, Coleoptera and Hymenoptera), rodents and mites.	Students make familiar with economic pests including storage pests, mites and rodents.	Lectures 5
4	Highlights of major plant diseases belonging to different classes of fungi, bacteria, nematodes, and weeds.	Appraised about the insect pests and pathogen like fungi, bacteria, virus, weeds and nematodes.	Lectures 5
5	Losses and damages caused by pests. Methods of pest control.	Students will aware about the host pest relationship and control of them including IPM.	Lectures 6
6	Pesticides application and plant protection equipments.	Students let it on about the plant protection equipment and safe use of pesticides.	Lectures 4

14.1.22

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Practical and field work:

Pract.	Learning output	Learning outcome	Methodology
•	General equipments, microscopy, sterilizations of glassware's and preparation of culture media	Students learn how to operate the different equipments and sterilization techniques	Lab session 2
•	Collection, preservation and identification of pests and diseases specimen of field crops, fruits, vegetables and their natural enemies.	The student will get the knowledge and acquaint with collection, identification and preservation of pest and diseases.	Lab session 1
•	Demonstration of damages and losses caused by major pests and pathogens	Students familiarized with different type of damage due to pest and pathogens	Lab session 2
•	Safe use of pesticides and plant protection equipments.	Students get knowledge and acquaint with application an use of plant protection equipments	Field visit and Lab session 2
•	Pest and disease incidence	Students will be familiar with types of insect pests and pathogens present in surroundings as soil borne, seed- and air borne and also from different parts of host.	Field visit and Lab session 2

14.1.22

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2020-21
Value Added Course
Institute of Applied Sciences

Course Name: Green Chemistry | **Total Contact Hours**
Course Code: CHV–0001 | **30 Hours**

At the completion of course Green Chemistry, student will be able to

Introduction to Green Chemistry
What is Green Chemistry? Need for Green Chemistry. Goals of Green Chemistry. Limitations/ Obstacles in the pursuit of the goals of Green Chemistry

Principles of Green Chemistry and Designing a Chemical synthesis
Twelve principles of Green Chemistry with their explanations and examples and special emphasis on the following:

- Designing a Green Synthesis using these principles; Prevention of Waste/ byproducts; maximum incorporation of the materials used in the process into the final products, Atom Economy, calculation of atom economy of the rearrangement, addition, substitution and elimination reactions.
- Green solvents– supercritical fluids, water as a solvent for organic reactions, ionic liquids, fluorous biphasic solvent, PEG, solvent less processes, immobilized solvents and how to compare greenness of solvents.
- Energy requirements for reactions – alternative sources of energy: use of microwaves and ultrasonic energy.
- Use of catalytic reagents (wherever possible) in preference to stoichiometric reagents; catalysis and green chemistry, comparison of heterogeneous and homogeneous catalysis, biocatalysis, asymmetric catalysis and photo catalysis.

Examples of Green Synthesis/ Reactions and some real world cases

1. Microwave assisted reactions in water: Hofmann Elimination, methyl benzoate to benzoic acid, oxidation of toluene and alcohols; microwave assisted reactions in organic solvents Diels-Alder reaction and Decarboxylation reaction
2. Surfactants for carbon dioxide – replacing smog producing and ozone depleting solvents with CO_2 for precision cleaning and dry cleaning of garments.
3. An efficient, green synthesis of a compostable and widely applicable plastic (poly lactic acid) made from corn.
4. Healthier fats and oil by Green Chemistry: Enzymatic interesterification for production of no Trans-Fats and Oils

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Future Trends in Green Chemistry

Oxidation reagents and catalysts; Biomimetic, multifunctional reagents; Proliferation of solventless reactions; co crystal controlled solid state synthesis (C^2S^3); Green chemistry in sustainable development.

Books Recommended/Suggested Reading:

1. *Ahluwalia, V.K. & Kidwai, M.R. New Trends in Green Chemistry, Anamalaya Publishers (2005).*
2. *Anastas, P.T. & Warner, J.K.: Green Chemistry - Theory and Practical, Oxford University Press (1998).*
3. *Matlack, A.S. Introduction to Green Chemistry, Marcel Dekker (2001).*
4. *Cann, M.C. & Connely, M.E. Real-World cases in Green Chemistry, American Chemical Society, Washington (2000).*
5. *Ryan, M.A. & Tinnesand, M. Introduction to Green Chemistry, American Chemical Society, Washington (2002).*
6. *Lancaster, M. Green Chemistry: An Introductory Text RSC Publishing, 2nd Edition, 2010.*

14-1-22

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2016-17

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Value Added Course
Institute of Legal Studies and Research

Course Name- How To Work With A Senior Advocate **Total Contact Hours**
Course Code: LMV-0009 **30Hours**

Working in litigation is a dream of thousands of law students and graduates. Although there is no sure-shot way to succeed in the profession, working under the guidance of a senior advocate is highly recommended. However, not everybody gets a chance to work with good senior advocates as most follow a process of rejection rather than selection to choose juniors. Moreover, the challenge doesn't end at joining a senior; adapting to the working of the senior and getting the right experience and knowledge through the association are the tasks not everyone achieves easily.

This course deals with the concept of learning while working with a senior advocate. It explains the process and tips to get the job of a junior advocate and describes how one should work to achieve maximum out of the association with a senior, covering key aspects like work culture at a senior advocate's chamber, expectations out of a junior in the chamber, etc. The course is a must read for all law students and graduates who want to work as an advocate.

COURSE OUTCOME

After completing this course, you will be able to:

- Analyse the concepts of 'Senior Advocate' and 'Junior Advocate' and their role in the field of litigation
- Prepare a cover letter and resume to apply for the position of Junior Advocate
- Discuss the work culture at a Senior Advocate's chamber, expectations out of a junior in the chamber, client handling, knowledge enhancement, etc.
- Understand the working and process of getting work with a Senior Advocate

COURSE OUTLINE

- Module 1 – Introduction to Litigation: Working with a Senior Advocate
- Module 2 – Applying for the Post of Junior Advocate
- Module 3 – Chambers of a Senior Advocate
- Final Assessment

14-01-22
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Institute of Applied Sciences

Course Name: Intellectual Property Rights | **Total Contact Hours**
Course Code: CHV- 0002 | **30 Hours**

Course Objectives:
The main aim of this course is provide the knowledge to the students about various types of Intellectual Property Rights, Patentable Subject, History of Indian Patent Protection, Patent filing procedure in India, Opposition- pre-grant opposition and post-grant opposition, Patent filing procedure under PCT, advantages, patent search and literature and Salient features of Indian Patents, validation process in India etc..

Course Outcome: The clear information about the patent laws, intellectual property rights and drug regulation in India and abroad is gained by the students.

UNIT – I **6 Hours**

Introduction, Types of Intellectual Property Rights (Patents, Trademarks, Copyrights, Geographical Indications Industrial Designs and Trade secrets), Patentable Subject Matter (Novelty, Non Obviousness, Utility, enablement and Best mode),

UNIT – II **6 Hours**

- History of Indian Patent Protection, Rationale behind Patent System, Objectives and Advantages of Patent System, and future challenges. Indian Patents Act 1970, Definitions and Key Terminology, Types of Patent applications, Inventions not patentable (section 3 and 4).
- Patent filing procedure in India (Patent Prosecution), Specifications (Provisional and Complete), Claims- types of claims and legal importance of claims, Grant of patent, Rights of Patentee and co-owners
- Opposition- pre-grant opposition and post-grant opposition, Anticipation, Infringement, Compulsory Licensing, revocation of patents, and power of Controller.
- Patent filing procedure under PCT, advantages, patent search and literature

Unit – III **6 Hours**

- Salient features of Indian Patents (Amendments) Act 1999, 2002 and 2005. US and European Patent System,
- Background, Salient Features and Impact of International Treaties / Conventions like

1. Paris Convention, Berne convention
2. World Trade Organization (WTO)
3. World Intellectual Property Organization (WIPO)
4. Trade Related Aspects of Intellectual Property Rights (TRIPS)
5. Patent Co-operation Treaty (PCT), Madrid Protocol

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Mangalayatan University
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Unit – IV **6 Hours**

1. PCT Application procedure and review procedure
2. National phase application procedure for US& EU
3. Patent prosecution procedure in US and EU
4. WIPO and its role in IPR
5. Hatch- Waxman provision for IPR

Unit – V **6 Hours**

1. Patent in validation process in India, US and Europe
2. IPR related to copyright, trade mark, trade secret and geographical indication.
3. Patent application writing
4. Claim construction and claims.

Recommended Books:

1. Research Methodology concepts and cases by Depak Chawla, Neena Sondhi
2. Draft manual of Patent Practice and Procedure -2008 , The Patent Office, India
3. Manual of Patent Office Practice and Procedure -2010
4. Original Laws Published by Govt. of India
5. Protection of Industrial Property rights by P. Das and Gokul Das
6. Law and Drugs, Law Publications by S. N. Katju
7. Laws of drugs in India, Hussain
8. New drug approval process, 5th edition, by Guarino
9. Commercial Manual on Drugs and Cosmetics 2004, 2nd edition
10. Drugs and Cosmetics act by Vijay Malik
11. Good Manufacturing Practices for Pharmaceuticals, S.H. Wiling, Vol. 78, Marcel Decker.
12. fda.org,wipo.int,patentlawlinks.com, hc-sc.gc.ca,ich.org,cder.org
13. Current good manufacturing practices for pharmaceuticals by Manohar A. Potdar
14. Pharmaceutical Regulatory affairs –selected topics. CVS subhramanyam and J Thimma settee. Delhi, Vallabha Prakasham, 2012

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Institute of Business Management
Value Added

Course Name: Introduction to Accounting
Course Code: MGV-0001

Total Contact Hours
30 Hours

Contents:
Unit - I:

Concept of Book Keeping & Accountancy.
Basic Accounting (Journal, Ledgers, Cash Book etc).
Important basic Terms; Errors & their rectification.

Unit -II:

Trial Balance.
Final Accounts:- Trading, P/L and Balance Sheet. (Including Adjustments)

Unit -III:

Bank Reconciliation Statement.
Depreciation – Methods.

Unit - IV:

Royalty Accounts.
Hire Purchase & Installment System.

Books Recommended/Suggested Reading:

1. Book Keeping and Accounting- T.S. Grewal, S Chand & Co. Delhi.
2. Elementary Accounting - T.S. Grewal, S Chand & Co. Delhi.
3. Financial Accounting - Dr S M Sukla, Sahitya Bhawan Pub, Agra.
4. Financial Accounting - Dr K G Gupta, K G Pub, Modinagar.
5. Financial Accounting - Naveet Pub, Najibabad.
6. Financial Accounting - Dr S P Gupta, Meenakshi Pub, Meerut.
7. Advanced Accounting- Dr S P Jain, and K L Narang, Kalyani, Pub.

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Department: Visual and Performing Arts

Course Name: Introduction to Indian Music
Course Code: PAP-0002

Total Contact Hours
30 Hours

Objectives of the course: The course is intended to-

1. Explain different genres of Indian music
2. Critical Study of various traditions of Music
3. Explain various regional musical traditions and concepts
4. Contributions of great masters of Indian music

Unit-I Genres-1, Traditional: Classical, Carnatic, Hindustani, Folk, Rabindra Sangeet Related topics: Classification of Note (Swara), Beat(Taal)- various rhythmic patterns North and South Indian music, History of Indian music- different periods

Unit-II Genres-2, Modern: Thumri, Dadra, Chaiti, Kajari, Sufi, Ghazal, Qawwali, Bhangra, Filmi, Bollywood, Ghazal, Indi-pop, Jazz, Rock , Raga music

Unit-III Media and performance Music awards•Film fare Awards • Sangeet Natak Akademi Award Music festivals•Saptak Festival of Music * Chennai Music Season •Dover Lane music festival • Harivallabh Sangeet Sammelan * Great masters of Indian music and their contibutions

Unit-IV Nationalistic and patriotic songs, National anthem: Jana Gana Mana Regional music: Traditional music of: Assam, Bihar, Chattisgarh, Goa, Gujrat, Madhya Pradesh, Orissa, West Bengal

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Value Added Course Syllabus

Introduction to Mass Communication

Subject Code: EDV-0004

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2	0	0	0

Objectives

After studying this course the students shall be able to:

1. understand the importance, functions & scope of communication and media.

2. describe the growth and development of communication and media.

3. understand the periodic changes in the media.

OUTCOMES

S.No.	Course Outcomes	Level
1	understand the importance, functions & scope of communication and media.	Comprehension
2	describe the growth and development of communication and media.	Comprehension
3	understand the periodic changes in the media.	Comprehension

Unit-I Communication & Media

Communication & Media: Definition, meaning & concept. 2. Different types of communication: Verbal and written 3. Scope and Process of Communication 4. Mass Communication: Concept & Characteristics

Unit-II History of Mass Media

Mass Media: Meaning & Concept 2. Introduction to Indian Press 3. Brief account of the origin and development of newspaper and magazine in India 4. History of the development of electronic media in India: Radio & TV

Unit-III Mass media & Mass Culture

Role, objectives functions & achievements of Mass Media 2. Relation between Mass Media and Mass Culture and their development. 3. Media as fourth pillar of democracy 4. Mass Media in Rural-Urban divide.

Unit-IV Media, Market and Technology

19-1-22

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Changing trends of Mass Communication under the process of globalization 2. Private and Public Media 3. Technology in the development of Media 4. Media and Market: Nature, Relation & Expansion

Suggested Readings:

1. Kumar, Kewal J Mass Communication in India, Jaico Books, New Delhi,

2. J.S. Yadava & Pradeep Mathur Issues in Mass Communication: The Basic Concepts, Kanishka Publishers, Delhi, 2008

3. Shymali Bhattacharjee., Media and Mass Communication

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Department of Pharmacy

Course Name: NOVEL DRUG DELIVERY SYSTEMS **Total Contact Hours**
Course Code: PCV- 0010 **30Hours**

Unit I Sustained Release (SR) and Controlled Release (CR) formulations: Introduction & basic concepts, advantages/ disadvantages, factors influencing, Physicochemical & biological approaches for SR/CR formulation, Mechanism of Drug Delivery from SR/CR formulation. Polymers: introduction, definition, classification, properties and application Dosage Forms for Personalized Medicine: Customized drug delivery systems.

Unit II Rate of Controlled Drug Delivery Systems: Principles & Fundamentals, Types, Activation; Modulated Drug Delivery Systems; Mechanically activated, pH activated, Enzyme activated, and Osmotic activated Drug Delivery Systems .

Unit III **Gastro-Retentive Drug Delivery Systems:** Principle, concepts advantages and disadvantages, Modulation of GI transit time approaches to extend GI transit. Buccal Drug Delivery Systems: Principle of muco adhesion, advantages and disadvantages, Mechanism of drug permeation, Methods of formulation and its evaluations.

Unit IV **Ocular Drug Delivery Systems:** Barriers of drug permeation, Methods to overcome barriers.

Vaccine delivery systems: Vaccines, uptake of antigens, single shot vaccines, mucosal and transdermal delivery of vaccines.

Unit V **Tran dermal Drug Delivery Systems:** Structure of skin and barriers, Penetration enhancers, Tran dermal Drug Delivery Systems, Formulation and evaluation.

Protein and Peptide Delivery: Barriers for protein delivery. Formulation and Evaluation of delivery systems of proteins and other macromolecules.

Recommended Books:

1. Y W. Chien, Novel Drug Delivery Systems, 2nd edition, revised and expanded, Marcel Dekker, Inc., New York, 1992.
2. Robinson, J. R., Lee V. H. L, Controlled Drug Delivery Systems, Marcel Dekker,Inc., New York, 1992.
3. Encyclopedia of controlled delivery, Editor- Edith Mathiowitz, Published by WileyInterscience Publication, John Wiley and Sons, Inc, New York! Chichester/Weinheim
4. N.K. Jain, Controlled and Novel Drug Delivery, CBS Publishers & Distributors, New Delhi, First edition 1997 (reprint in 2001).
5. S.P.Vyas and R.K.Khar, Controlled Drug Delivery - concepts and advances, VallabhPrakashan, New Delhi, First edition 2002

14.1.22

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2020-21

Value Added Course
Department of Pharmacy

Course Name: Pharmaceutical Packaging **Total Contact Hours**
Course Code: PCV- 0002 **30Hours**

Unit I **6 Hours**

Introduction of pharmaceutical packaging, Types of packaging, Package testing, Types of Pharmaceutical Packaging Material, The Choice of Packaging Material will depend upon, Characterstics of Packaging Materials, Role of Packaging.

Unit II **6 Hours**

Selection of the Packaging Materials, Factors affecting selecting of packaging material, Container, Ideal Requirements of Containers, Types of containers, Material used for making of Containers.

Unit III **6 Hours**

Glass in pharmaceutical packaging, Advantages & Disadvantages of glass, Composition of Glass, Types of Glass, Evaluation of Glass.

Unit IV **6 Hours**

Plastic in pharmaceutical packaging, Advantages & Disadvantages of plastic, Composition of plastic, Classification of plastic, Evaluation of plastic.

Unit V **6 Hours**

Metal in pharmaceutical packaging, Advantages & Disadvantages of metal, Closures, Types of Closures, Materials used for making of Closures, Evaluation of Closures.

Recommended Books:

1. Pharmaceutical Packaging Handbook, 1st Edition *By* **Edward Bauer**
2. Pharmaceutical Packaging Technology, edited by DA Dean, ER Evans & IH Hall, Taylor & Francis London & New Yark.
3. A text book of Pharmaceutical Packaging Technology, CBS Publisher & Distributer Pvt. Ltd. New Delhi.
4. A Textbook of Pharmaceutical Technology And Dosage Form Design, PV Publisher.

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Department Journalism & Mass Communication

Course Name- Photography | **Total Contact Hours**
CourseCode:JMV-0003 | **30 Hours**

Objectives :

1- Students will be able to shoot quality photos.
2- Students will be able to understand the concept of different angles.
3- Students will be able to know technical tools of camera.
4- Students will be able to operate camera and also know lenses, lights.

Unit-I

Concepts of digital photography, Aesthetics of Photography, Technical of photography, Manual photography, Aperture, Shutter Speed, ISO, Understanding exposure, Concepts of framing, Rules of photography, Types of photography, Light, Tools of photography, Photo journalism, Photoshop, Production – Photo feature and Photo-essay.

Unit-II

Introduction to video camera, Parts of video camera and their functions, Camera movement equipment, Lenses – functions and types.

Unit-III

Composition – different types of shots, camera angles and camera movements,Aesthetics in visual composition, Subject - camera relationship Aperture control and depth of field.

Unit-IV

Lights and its properties, Different types of lights, Other tools used in lighting – diffusers, reflectors, cutters & gels, Basic lighting techniques, Accessories used in lighting.

Unit-V

Audio fundamentals, Various audio elements used in video programmers – lip, synchronized sound, voice, music, ambience, sound effects, Types of microphones, Use of audio mixers for recording & editing of sound, Different audio equipment for studio and location recording, Audio post production – mix and un-mix tracks.

Teaching Hours-30

UNIT-1 -5 Hrs.

1 Hour- Concepts of digital photography, Aesthetics of Photography, Technical of photography, Manual photography,
2 Hour-Aperture, Shutter Speed, ISO, Understanding exposure, Concepts of framing, Rules of photography, Types of photography,
2-Hour-Light, Tools of photography, Photo journalism, Photoshop, Production – Photo feature and Photo-essay.

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UNIT-2, 3-10 Hrs.

2 Hour- Introduction to video camera, Parts of video camera and their functions,
3 Hour- Camera movement equipment, Lenses – functions and types.
2 Hour- Composition – different types of shots, camera angles and camera movements,
3 Hour- Aesthetics in visual composition, Subject - camera relationship Aperture control and depth of field.

UNIT-4, 5-7 Hrs.

2 Hour- Lights and its properties, Different types of lights, other tools used in lighting – diffusers
2 Hour- reflectors, cutters & gels, Basic lighting techniques, Accessories used in lighting.
1 Hour- Audio fundamentals, various audio elements used in video programmers
2 Hour- lip, synchronized sound, voice, music, ambience, sound effects, Types of microphones,

UNIT-5-8 Hrs.

2 Hour- Use of audio mixers for recording & editing of sound
2 Hour- Different audio equipment for studio and location recording,
2 Hour- Audio post production
2 Hour- mix and un-mix tracks.

14-1-22

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2020-21

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Value Added Course

Department of Bio-Technology

Course Name: Plant Tissue Culture | **Total Contact Hours**
Course Code: BSV–0010 | **30Hours**

Objective of the Courses:
The objective of the course is to provide basic and applied training in the subject for development of skills for a successful career in entrepreneurship, generate technically trained human resource for tissue culture industries.

Unit- I Introduction. History. Scope. Advantages. Applications. Limitations, Guidelines for establishing academic and commercial laboratory.

Unit -1I Steps involved in Plant Tissue Culture., Various nutrient medium composition, Plant growth regulators and their role in nutrient media, Types of organ cultures and their applications, Pathways of regeneration, Micro grafting of commercially important plants. In vitro approaches for crop improvement, Plant cell reactors, Micro techniques.

Unit–III Meristem culture for the production of virus free plants, Nucellus culture for clonal propagation and large scale multiplication, Strategise of Micro propagation, Stages of micropropagation via axillary shoot proliferation in Monocots and Dicots, Stages in micropropagation via direct and indirect organogenesis., Stages in micro propagation via direct and indirect somatic embryogenesis, Low cost methods for micro propagation.

Unit–IV Handling and Instrumentation of Plant Tissue Culture, Glassware Washing & Sterilization Techniques, Preparation of stock solutions and nutrient media,. Surface sterilization of Explants.

Unit- V Monocot and Dicot Seed cultures for the establishment of organ cultures, Establishment of organ cultures for the induction of callus, Establishment of organ cultures for the induction of multiple shoots, Sub-culturing of nucellar seedlings for clonal propagation., Technique of micrograftingin fruit crops, Primary hardening of tissue culture plants for their acclimatization Cytological study of calli cells and their sub culturing, Establishment of embryogenic/ non embryogenic cell suspension cultures, Embryo / Endosperm/ Ovules and anther Cultures.

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Value Added Course

Institute of Education and Research

Course Name: Professional Language Skills and Grammar Composition **Total Contact 32 Hours**

Course Code: EDV-0007

Unit – I: . Basics of pronunciation, consonant and vowel sounds, pronunciation of tricky and difficult words 2. Grammar – articles, tenses, prepositions, modals, connectives

Unit – II: Contextual vocabulary – vocabulary for everyday use, evaluative, descriptive and action words, word chunks, formulaic expressions 4. Listening and speaking skills – picture stories/story grammar, narration, dialogue, language games. (Use of audio-visual aids and realia such as newspapers, magazines etc.)

Unit–III: Reading and writing skills – letter writing, topic sentence and paragraph writing, information gap exercises. Netiquette (email correspondence). Nonverbal communication and personality development 8. Resume, interview skills and group discussion Course in English for Office Communication

Unit –IV: basic literary genres – fiction, drama and poetry .vocabulary and style resources. Genre study and point of view. The techniques of different genres through use of authentic texts. Writing through the senses, image descriptions, inventive metaphors and similes. Characterization and plot development .Authentic voice and dialogue .Using personal experiences for fiction writing

References:

1 Lesikar, Raymond V., John D Pettit, and Mary E FlatlyLesikar's, Basic Business Communication, 10th ed. Tata McGraw-Hill, New Delhi, 2007.
2. Gerson, Sharan J., and Steven M Gerson, Technical Writing: Process and Product. Pearson Education, New Delhi, 2008.
3. Murphy, Herta, Herbert W Hildebrandt, and Jane P Thomas, Effective Business Communication. 7th ed. Tata McGraw-Hill, New Delhi.
4. Bovee, Courtland and John V Thill, Business Communication Today, 8th ed. Pearson Education, New Delhi, 2008.

14-1-22

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Department of Mechanical Engineering

Course Name: Renewable Energy Resources **Total Contact Hours**
Course Code: MEV-0010 **30 Hours**

Unit-I Introduction: Various non-conventional energy resources- Introduction, availability, classification, relative merits and demerits. Solar Cells: Theory of solar cells. Solar cell materials, solar cell array, solar cell power plant, limitations.

Unit-II Solar Thermal Energy: Solar radiation, flat plate collectors and their materials, applications and performance, focussing of collectors and their materials, applications and performance; solar thermal power plants, thermal energy storage for solar heating and cooling, limitations.

Unit-III Geothermal Energy: Resources of geothermal energy, thermodynamics of geothermal energy conversion-electrical conversion, non-electrical conversion, environmental considerations. Magneto-hydrodynamics (MHD): Principle of working of MHD Power plant, performance and limitations. Fuel Cells: Principle of working of various types of fuel cells and their working, performance and limitations.

Unit-IV Thermo-electrical and thermionic Conversions: Principle of working, performance and limitations. Wind Energy: Wind power and its sources, site selection, criterion, momentum theory, classification of rotors, concentrations and augments, wind characteristics. performance and limitations of energy conversion systems.

Unit-V Bio-mass: Availability of bio-mass and its conversion theory. Ocean Thermal Energy Conversion (OTEC): Availability, theory and working principle, performance and limitations. Wave and Tidal Wave: Principle of working, performance and limitations. Waste Recycling Plants.

Text books:

1. Raja etal, "Introduction to Non-Conventional Energy Resources" Scitech Publications.

2. John Twideu and Tony Weir, "Renewal Energy Resources" BSP Publications, 2006.

3. M.V.R. KoteswaraRao, "Energy Resources: Conventional & Non-Conventional" BSP Publications,2006.

4. D.S. Chauhan,"Non-conventional Energy Resources" New Age International.

5. C.S. Solanki, "Renewal Energy Technologies: A Practical Guide for Beginners" PHI Learning.

6. Peter Auer, "Advances in Energy System and Technology". Vol. 1 & II Edited by Academic Press.

7. Godfrey Boyle," Renewable Energy Power For A Sustainable Future", Oxford

14.1.22

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Department of Electrical & Electronics Engineering

Course Name- Renewable Energy Resources | **Total Contact Hours**
Course Code - ECV-0004 | **30 Hours**

Unit-I: Introduction: Various non-conventional energy resources- Introduction, availability, classification, relative merits and demerits. Solar Cells: Theory of solar cells. Solar cell materials, solar cell array, solar cell power plant, limitations.

Unit-II: **Solar Thermal Energy**: Solar radiation, flat plate collectors and their materials, applications and performance, focusing of collectors and their materials, applications and performance; solar thermal power plants, thermal energy storage for solar heating and cooling, limitations.

Unit-III: Geothermal Energy: Resources of geothermal energy, thermodynamics of geothermal energy conversion-electrical conversion, non-electrical conversion, environmental considerations. Magneto-hydrodynamics (MHD): Principle of working of MHD Power plant, performance and limitations. Fuel Cells: Principle of working of various types of fuel cells and their working, performance and limitations.

Unit-IV: **Thermo-electrical and thermionic Conversions**: Principle of working, performance and limitations. Wind Energy: Wind power and its sources, site selection, criterion, momentum theory, classification of rotors, concentrations and augments, wind characteristics. performance and limitations of energy conversion systems.

Text Books:

1. Raja etal, "Introduction to Non-Conventional Energy Resources" Scitech Publications.
2. John Twideu and Tony Weir, "Renewal Energy Resources" BSP Publications, 2006.
3. M.V.R. Koteswara Rao, "Energy Resources: Conventional & Non-Conventional" BSP Publications,2006.
4. D.S. Chauhan,"Non-conventional Energy Resources" New Age International.

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Institute of Legal Studies and Research

Course Name- Right To Information (Rti) & You: Practice & Procedure Made Easy

35 Hours

Course Code: LMV-0008

An RTI application is a powerful tool in the hands of citizens. It brings not only transparency but also accountability in governance. No wonder, students, journalists, social workers and common people use it extensively to get information related to work done in various projects and fields, and also keep a check on the government. Even though RTI is widely used and is quite popular, many people are not aware of what, how and where of the RTI process, marring their ability to file an application.

This course empowers you to file an RTI application by providing all key aspects of the procedure and sharing examples and samples. It outlines salient features of the Right to Information Act, 2005 emphasizing on how it promotes transparency and accountability in the working of the Government. The course gives the practical applicability of the Right to Information Act, 2005 and brings greater clarity on RTI among various stakeholders.

COURSE OUTCOME

After completing the course, you will be able to:

Understand the practical applicability of the Right to Information Act, 2005File an RTI by going through the procedure for seeking information from any public office within the territory of India Discuss the request disposal procedure as defined under the Act Identify the information that is exempted from disclosure under the RTI regime

COURSE OUTLINE

- Module 1 – Right to Information Regime in India: a Tool in the hands of the Citizens
- Module 2 – Using the RTI Act to get "Information"- The Filing of the Request for obtaining Information
- Module 3 – Disposal of the Request and the time limits for Compliance with the Request
- Module 4 – Information Exempted from disclosure under the RTI Regime
- Module 5 – Enforcement Measures
- Module 6 – Success Stories and Case Studies
- Module 7 – The Evolution of the Right to Information
- Module 8 – Conclusion and the Way forward
- Certification Exam/ Assessment.

14-1-22

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2020-21

Value Added Course

Department of Civil Engineering

Course Name- Solid Waste Management **Total Contact Hours**
Course Code- CEV-0001 **36Hours**

Objectives of the Course: After studying this course the students shall be able to:

1. Explain municipal solid waste management systems with respect to its physical properties, and associated critical considerations in view of emerging technologies .Enumerate principles of development
2. Outline sources, types and composition of solid waste with methods of handling, sampling and storage of solid waste.
3. Select the appropriate method for solid waste collection, transportation, redistribution and disposal.
4. Describe methods of disposal of hazardous solid waste.

Unit I. Sources and Composition of Municipal Solid Waste. **(7 hours)**
Introduction :Sources of solid waste, Types of solid waste, Composition of solid waste and its determination. Types of materials recovered from MSW.

Unit II Properties of Municipal Solid Waste **(7 hours)**
Physical properties of Municipal Solid Waste .Chemical properties of Municipal Solid Waste. Biological properties of Municipal Solid Waste, Transformation of Municipal Solid Waste.

Unit III Solid Waste Generation and Collection **(7 hours)**
Quantities of Solid Waste. Measurements and methods to measure solid waste quantities. Solid waste generation and collection. Factors affecting solid waste generation rate. Quantities of materials recovered from MSW.

Unit IV Handling, Separation , Storage and Processing of Solid Waste . **(9 hours)**
Handling and separation of solid waste At site: Material separation by pick in, screens, float and separator magnets and electromechanical separator and other latest devices for material separation. Waste handling and separation at Commercial and industrial facilities. Storage of solid waste at the sources. Processing of solid waste: at residence e.g. Storage, conveying, compacting, Shredding, pulping, granulating etc. Processing of solid waste at Commercial and industrial site.

Practicum: Survey and prepare a report on MSW of your locality and Identify its sources and write composition of MSW.

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Suggested Readings

1. Integrated solid waste management, Integrated solid waste management, Mc.Graw Hill Company, London
2. Disposal and recovery of municipal solid waste, Michael E Henstock Butterworths, Ann Arbor Science Mc.Graw Hill Company, London .
3. solid waste management, P Aarne Vesilig.
4. Environmental Engineering, Mackenzie L Davis, David A Cornwell.

List of Software/Learning Websites:

i. http://www.moef.nic.in/legis/hsm/mswmhr.html
ii.en.wikipedia.org/wiki/wastemanagement
iii.http://www.cyen.org/innovaeditor/assets/Solid%20waste%20management.pdf
iv.http://www.ilo.org/oshenc/part-vii/environmental-pollution-control/item/514-solidwaste-management-and-recycling v.www.houstontx.gov/solidwaste

14-1-22
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Value Added Course

Institute of Education and Research

Course Name: Sustainable Development | **Total Contact Hours**
Course Code: EDV-0002 | **30Hours**

Unit I : Introduction To Sustainable Development

Status of environment – Environmental, Social and Economical issues – Need for sustainability – Nine ways to achieve sustainability – population, resources, development and environment.

Unit II : Challenges Of Sustainable Development

Concept of sustainability – Factors governing sustainable development – Linkages among sustainable development- Environment and poverty – Determinants of sustainable development – Case studies on sustainable development .

Unit III Global Environmental Issues

Population, income and urbanization – Health care – Food, fisheries and agriculture – Materials and energy flows.

Unit IVSustainable Development Indicators

Need for indicators – Statistical procedures – Aggregating indicators – Use of principal component analysis – Three environmental quality indices.

Suggested Readings

1.Sayer, J. and Campbell, B., "The Science of Sustainable Development: Local Livelihoods and the Global Environment" (Biological Conservation, Restoration &Sustainability), Cambridge University Press, London, 2003.

2.Kirkby, J., O''Keefe P. and Timberlake, "Sustainable Development", Earth scan Publication, London, 1993.

3.Peter P. Rogers, Kazi F. Jalal, John A. Boyd, "An introduction to sustainable development", Glen Educational Foundation, 2008.

4.Jennifer A. Elliott, "An introduction to sustainable development". London: Routledge: Taylor and Francis group, 2001.

5.Low, N. Global ethics and environment. London: Routledge. 1999.

6.Douglas Muschett, Principles of Sustainable Development, St. Lucie Press, 1997.

14.1.22

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2020-21

Value Added Course
Department: Visual and Performing Arts

Course Name: Tabla Vadan | **Total Contact Hours**
Course Code: PAP-0001 | **32 Hours**

Objectives of the course: The course is intended to-

1. Explain different Schools of Tabla
2. Critical Study of various techniques and traditions of tabla playing
3. Explain various concepts of rhythmic patterns
4. Contributions of great masters of Tabla

Unit-I Definitions : Sangeet, Taali, Lay, Matra, Vibhag, Origin of Taal, History of Tabla, Different Part of Tabla,(Draw sketch of Tabla), Varna of Tabla & its importance, Life Sketch : Pt. SamtaPrasad, Alla Rakha Khan

Unit-II Definitions: Bole, Theka, Tihai, Avartan, Khali, Study of different schools (Gharana) of Tabla, .Life Sketch: Pt. Kishan Maharaj & Ustad Zakir Hussein, Essay: Importance of Music in human life

Unit-III Importance of Tala or Rhythm in music, Great masters of Banaras gharana of Tabla, Playing method of different school of (Gharana) Tabla, Life Sketch : Ahmad Jan Thirkva & Kanth Maharaj, Essay: Classification of Indian Taals

Unit-IV Difference between Indian and Western Percussion Instruments , Classification of Indian musical Instruments, Life Sketch : Taufiq Kureshi, Nayan Ghosh, Essay: Role of Taal in Hindi Film music.

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2020-21

Value Added Course

Department of Mechanical Engineering

Course Name: Total Quality Management (Tqm) **Total Contact Hours**

Course Code: MEV-0005 **30 Hours**

Unit-I Quality Concepts Evolution of Quality control, concept change, TQM Modern concept, Quality concept in design, Review off design, Evolution of proto type. Control on Purchased Product Procurement of various products, evaluation of supplies, capacity verification, Development of sources, procurement procedure. Manufacturing Quality Methods and Techniques for manufacture, Inspection and control of product, Quality in sales and services, Guarantee, analysis of claims.

Unit-II Quality Management Organization structure and design, Quality function, decentralization, Designing and fitting organization for different types products and company, Economics of quality value and contribution, Quality cost, optimizing quality cost, seduction programme. Human Factor in Quality Attitude of top management, co-operation, of groups, operators attitude, responsibility, causes of operators error and corrective methods.

Unit-III Control Charts Theory of control charts, measurement range, construction and analysis of R charts, process capability study, use of control charts. Attributes of Control Charts Defects, construction and analysis off-chart, improvement by control chart, variable sample size, construction and analysis of C-chart.

Unit-IV Defects Diagnosis and Prevention Defect study, identification and analysis of defects, corrective measure, factors affecting reliability, MTTF, calculation of reliability, Building reliability in the product, evaluation of reliability, interpretation of test results, reliability control, maintainability, zero defects, quality circle.

Unit-V IS0-9000 and its concept of Quality Management: ISO 9000 series, Taguchi method, JIT in some details

References:

1. Lt. Gen. H.LaI, "Total Quality management", Wiley Eastern Limited, 1990.

2. Greg Bounds. "Beyond Total Quality Management".McGraw Hill, 1994.

3. Menon, H.G, "TQM in New Product manufacturing", McGraw Hill 1992

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Department Journalism & Mass Communication

Course Name- TV Anchoring and Radio Jockeying **Total Contact Hours**
Course Code -JMV-0001 **30 Hours**

Objectives:

1- Students will be able to writing script and editing.
2- Students will be able to Composition of Radio Programs.
3- Students will be able to understand Broadcast Style.
4- Students will be able to learn different types of techniques, Camera Facing etc

Course Outcomes-

At the end of the Content Writing value added course, student will be able to:

Unit-I Development of Radio

Radio: Brief History of Radio in India, Akashvani, AIR Code.

Stages of Programme Production

Radio: Pre-Production (Idea, Research, Radio Script, Production: Creative use sound (Listening, Recording, Using Archived Sound; Post Production: Sound Editing, Creative use of Sound Effects/ Sustainable goals of community radio station and impacts on society.

Unit-II Nature and Types of Radio Programs

Composition of Radio Programs: Specific Audience Programs, Radio Feature, Drama, Talk, Documentary and Interactive Programs.

Radio News: Reporting, Sources- Agency News, Broadcast Style, News Pooling in AIR, Announcing and presentation, TV News Bulletin Vs Radio News Bulletin, Newsreels, Voice Dispatch, Spots.

Unit-III Skills Set for Radio & TV

Pronunciation / Diction Clarity/Voice Modulation / Vocal Exercise/ Working Atmosphere & Responsibilities/ Introduction to camera/Make-up and Camera Facing/ Phone-Line Interview Camera Rehearsals/ Anchoring /Video Conference/ Connect to PCR / New Script, Final Rehearsals, Demo Tape Recording.

Unit-IV Organizational Structure, Career Options in TV Anchoring:

Organizational Structure for TV and Radio, Responsibilities of the concern Designation. Stage Anchor, News Anchor, Programme Anchor, A Presenter, Host, Live Events Anchor, Award Functions, Any Competition Shows, Comedy Shows, Film Based Shows, Cooking Shows, Reality Shows, Sports, Crime Reports, Talk Shows, Debates, TV News Anchors present news in different languages – Foreign, National and Regional Languages.

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Teaching Hours-30

UNIT-1 -5 Hrs.

1 Hour- Radio: Brief History of Radio in India, Akashvani, AIR Code
1 Hour- Radio: Pre-Production-(Idea, Research, Radio Script,
2 Hours- Production: Creative use sound (Listening, Recording, Using Archived Sound; Post Production: Sound Editing, Creative use of Sound Effects.
1 Hour- Sustainable goals of community radio station and impacts on society.

UNIT-2-5 Hrs.

2 Hour- Composition of Radio Programs, Specific Audience Programs, Radio Feature, Drama, Talk, Documentary and Interactive Programs.
2 Hour- Radio News: Reporting, Sources- Agency News, Broadcast Style, News Pooling in AIR, Announcing and presentation,
1 Hour- TV News Bulletin Vs Radio News Bulletin, Newsreels, Voice Dispatch, Spots.

Unit-3-10 Hrs.

2 Hour- Pronunciation / Diction Clarity/Voice Modulation / Vocal Exercise/
2 Hour- Working Atmosphere & Responsibilities/
2 Hour- Introduction to camera/Make-up and Camera Facing/ Phone-Line Interview Camera Rehearsals/
2 Hour- Anchoring /Video Conference/ Connect to PCR
2Hour- New Script, Final Rehearsals, Demo Tape Recording.
Unit-4-10 Hrs.

2 Hour- Organizational Structure for TV and Radio, Responsibilities of the concern Designation
2 Hour- Stage **Anchor**, **News** Anchor, Programme **Anchor**, **A** Presenter, Host, Live Events Anchor
2 Hour- Award Functions, Any Competition Shows, Comedy Shows, Film Based Shows,
2 Hour- Cooking Shows, Reality Shows, Sports, Crime Reports, Talk Shows, Debates,
2 Hour- TV News Anchors present news in different languages – Foreign, National and Regional Languages.

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Value Added Course

Department of Physical Education

Course Name: *Y*ogic Practices and Health Education **Total Contact Hours**
Course Code: PEO–0001 **30Hours**

Unit–I Yoga-Meaning concept, Mis-conceptions about Yoga-Relationship with physical education. Historical Background of yoga-yogic practices.

Unit-II Yoga as a discipline of life and mode of living, Types of Yog ,Raj Yoga, Bhakti Yoga, Karm Yoga ,Gyna Yoga, Hatha yoga.

Unit-III Astanga Yoga with special reference to – (A)Yamas (B)Niyams (C)Asana, Pranayams ; Types of Asana and Pranayams, Shat Karma-Personal hygiene of Yoga.

Unit-IV Bandhas, Mudras and Chakras of Yoga, Recent advances in Yoga Education; Yoga as a Science

REFERENCES :

1. Swami Kuvalayananda- ShirYogendra

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