Sr. No.	Programme	Name of Course	Course ID
1	Msc Psychology	Basics of Statistics using SPSS	241/MPSY/SE 301
2	M.Com.	Business Communication and Presentation Scale	241/COM/SE301
3	M.Com.	Advance Excel and Data Analysis	241/COM/SE302
4	MA Education	Disability Science and Inclusive Development: A Theoretical Framework	241/MEDU/SE 301
5	MA Education	e-Content-II	241/MEDU/SE 302
6	MA Education	Educational Guidance and Counselling-II	241/MEDU/SE 303
7	MA Education	Communication Skills-II	241/MEDU/SE 304
8	M.A. History	Archives and Museums	241/HIS/SE301
9	Master of Science (Environmental Science)	Global Environmental Issues	241/EVS/SE301
10	M.Sc. Neurosciences	Soft Skills and Career Preparation	241/NEU/SE301
11	Master of Computer Applications	Mobile Application Development	241/MCA/SE301
12	MBA 2 Year (Business Analytics)	Advanced Excel	241/MBABA/SE301
13	MBA 2 Year (3rd Semester)	Design thinking (MOOC Course)	241/MBA/MOOC301
13	MBA 2 Year (3rd Semester)	Design thinking	241/MBA/SE301
14	M.A. (Journalism & Mass Communication)	Graphic Designing	241/JMC/SE301
15	M.A. Economics	Data Analysis(Through MS Exel)	241/ECO/SE301
16	M.Sc. (Computer Science)	Numerical Ability & Enhancement Skill	241/CS/SE301
17	MSc Physics	Digital Electronics and Applications	241/PHY/SE301
18	M.Sc. Mathematics	Latex	241/MAT/SE301
19	M.Sc. Mathematics	Python for Statistical Analysis	241/MAT/SE302
20	M.A. Sociology	Social Entrepreneurship	241/SOC/SE301
21	M.Sc Zoology	Medical Physiology	241/ZOO/SE301
22	M.Sc Botany	Restoration Ecology	241/BOT/SE301
23	M.A. English	Spoken English	241/ENG/SE301
25	M.A. Geography	Computer aided geographical graphs and diagrams	241/GEO/SE301
26	M.A Political Science	Team Building and Leadership Skills	241/MPS/SE301
27	M.A. Public Policy, Administration and Governance	Applied Political Science	241/PPAG/SE301

28	M.Sc. Chemistry	Medicinal Chemistry	241/CHE/SE301
29	M.A. Applied Economics	Data Analysis with Statistical Softwares-II	241/AE/SE301
30	M A Hindu Studies	Basic Skills for Research Paper and Dissertation	251/HS/SE301
31	M.A Sanskrit	Basic Skills for Research Paper and Dissertation	251/SKT/SE301
32	M.A. Hindi	मौखिक भाषायी दक्षता	241/HIN/SE301
33	MA Music (Name issue)	Tabla Practical Aptitude	241/MUS/SE301
34	MA Music	Harmonium Practical Aptitiude 2	241/MUS/SE302
35	Master of Social Work	Development Communication	241/MSW/SE 301

241/MPSY/SE301

M.Sc. Psychology/ M.A. Psychology
Semester 3

Basics of Statistics using SPSS

SEC-2 Basics of Statistics using SPSS (241/MPSY/SE 301)
Credits:2 (Hrs./Week: 2)

Maximum Marks: 50
Theory Examination: 20
Internal Assessment: 05
Practical Examination: 20
Practical Assessment: 05
Time: 2 hrs.

Note: The students will be required to attempt three questions in all. Question No. I will be compulsory comprising of 8 short answer type questions of 1 mark each and will cover the entire syllabus. The answer should be in 100 words. The students are required to attempt six short answer type questions out of 8, i.e., 6 x1 = 6 marks. In addition to it, Question Nos. II to V will consist of long answer (essay type) questions, two Questions from each Unit with internal choice carrying 7 marks each i.e. 2x7 =14 marks thus making it the total weight age to 20 marks. Two questions to be attempted. One from each unit.

Course Outcomes:-

- Students will demonstrate a comprehensive understanding of the introduction of SPSS along with understanding of basic statistics and terminologies.
- Students will be able to apply skills of SPSS in real world settings, demonstrating the practical application of SPSS.
- Students will develop advanced data analysis skills, encompassing computation of parametric statistics and non-parametric statistics.

Unit-1

Introduction to statistical analysis using IBM SPSS, data entry, data coding, computation of descriptive statistics, computation of normal probability curve, computation of graph,
computation of parametric statistics, computation of non-parametric statistics.

Unit-2

Statistics: Descriptive v/s Inferential; Descriptive: mean, median, mode, basics of NPC, skewness, kurtosis. Inferential statistics: Correlation and its types.

Suggested readings:

1. Field, Andy. "Discovering statistics using SPSS". 3rd Ed,Sage Publishers,2009.
2. Pallant, Julie. "SPSS Survival Manual".4th ed, McGraw-Hill,2010.
3. Cronk, Brian. "How to use SPSS: A Step-by-step Guide to analysis and interpretation."5thEd.
4. HOW TO USE SPSS ® A Step-By-Step Guide to Analysis and Interpretation, Brian C. Cronk, Tenth edition published in 2018 by Routledge.

241/COM/SE301

Semester 3

Name of Subject: Business communication and presentation skills	**Maximum Theory Marks: 50 (TE+TI+PE+PI=35+15+0+0)**
Course ID: 241/COM/SE301	**Time Allowed: 2 hours**
Credits: 04 (L-T-P=3-1-0)	**Course Type: Skill Enhancement Course**

Instructions for Paper Setter: The question paper shall be divided into two sections. Section 'A' shall comprise 7 short answer type questions from the syllabus carrying 1 mark each, which shall be compulsory. The answer to each question should not normally exceed 50 words. Section 'B' shall comprise 8questions (2 questions from each unit). The students will be required to attempt five questions by selecting one question from each unit. All questions will carry equal marks. All the questions must be mapped with Course Outcomes (COs) and specified in the question paper against each question.

Course Outcomes: After completion of the course, learners will be able to:

CO1: Understand the principles of articulating ideas clearly and concisely.
CO2: Apply active listening skills to enhance understanding of colleagues and clients.
CO3: Analyze written communication to improve emails, reports, and other business documents.
CO4: Evaluate presentation techniques, focusing on structuring, organizing, and delivering effectively with voice modulation and body language.

Course Content:

Unit 1: Communication Skills: Concept, characteristics and process of communication; 7C's of communication; listening skills, verbal communication, non-verbal communication, body language; art of meeting and greeting, making effective conversation.	10 Lectures
Unit 2: Basic vocabulary: how to improve vocabulary, prefix/suffix, synonyms/antonyms, one word substitution, and spellings Developing fluency: grammar (conjunction, auxiliaries, prepositions, articles, tenses……), language games.	10 Lectures
Unit 3: Presentation Skills: Differencebetween speech and presentation; handling of presentation audience questions, holding meetings, group discussion and interviews; structuring a presentation, delivering the presentation; situational presentation.	10 Lectures
Unit 4: Proper use of Language: The Communication Skills, The effective Speech. Effective self-presentation & facing interview: The interview process & preparing for it, the presentation skills.	10 Lectures

Suggested Readings:

1. Vik, Gilsdorf, "Business Communication", Irwin
2. K K Sinha, "Business Communication", Himalaya Publishing House / Galgoria Publication
3. Bovee, "Business Communication", Pearson 'PHI
4. Mohan, Banerjee, Business Communication, Mac million
5. Raman, Singh – Business communication – Oxford Press

Mapping Matrix of Course: 241/COM/SE306A
CO-PO & CO-PSO Matrix for the Course: Business communication and presentation skills

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2
CO1	3	2	2	2	1	2	2	3	2	2
CO2	2	3	2	2	1	2	3	2	3	2
CO3	2	2	3	3	2	2	3	2	3	3
CO4	3	2	2	3	2	3	3	3	3	3
Average	2.50	2.25	2.25	2.50	1.50	2.25	2.75	2.50	2.75	2.50

241/COM/SE302

Name of Subject: Advanced Excel and Data Analysis	Maximum Theory Marks: 50 (TE+TI+PE+PI=35+15+0+0)
Course ID: 241/COM/SE302	Time Allowed: 2 hours
Credits: 04 (L-T-P=1-0-1)	Course Type: Skill Enhancement Course

Instructions for Paper Setter: The question paper shall be divided into two sections. Section 'A' shall comprise 7 short answer type questions from the syllabus carrying 1 mark each, which shall be compulsory. The answer to each question should not normally exceed 50 words. Section 'B' shall comprise 8questions (2 questions from each unit). The students will be required to attempt five questions by selecting one question from each unit. All questions will carry equal marks. All the questions must be mapped with Course Outcomes (COs) and specified in the question paper against each question.

Course Outcomes: After completion of the course, learners will be able to:

CO1: Understand how to analyze and present data using tables, pivot tables, pivot charts, and dashboards.
CO2: Apply various functions to examine complex business problems.
CO3: Analyze Excel add-ins for constraint optimization, summarization, and forecasting.
CO4: Evaluate the use of advanced spreadsheets in various real-life problems.

Course Content:

Unit 1: About Excel, Uses of excel Creating Pivot Table, Manipulating a Pivot Table, Data preparation process, missing values, and outliers	10 Lectures
Unit 2: Descriptive statistics and steps involved in the calculation of descriptive statistics in MS Excel. Mean, Median, mode, range, Standard deviation, skewness, and kurtosis.	10 Lectures
Unit 3: Sampling and statistical inference - parameter and statistic, sampling and non-sampling errors, sampling distribution of mean and proportion, degree of freedom, standard error, central limit theorem.	10 Lectures
Unit 4: Testing of Hypothesis with the help of MS Excel; hypothesis testing - meaning, types, type I and type 2 errors, level of significance, two-tailed and one-tailed tests. Procedure for hypothesis testing for mean, proportion, and variance, limitations of the test of hypothesis.	10 Lectures

Suggested Readings:

1. Jain, H. C. & Tiwari, H. N. "Computer Applications in Business" Taxmann, Delhi.
2. Mathur, S. & Jain, P. "Computer Applications in Business" Galgotia Publishing Company.
3. Madan, S. "Computer Applications in Business" Scholar Tech Press, Delhi.
4. Sharma, S.K. & Bansal, M. "Computer Applications in Business" Taxmann, Delhi.
5. Walkenbach, J. "MS Excel 2016, Bible". John Wiley & Sons, USA.
6. Winston, W. L. "MS Excel 2013, Data Analysis & Business Modeling" Microsoft Press,

Mapping Matrix of Course: 241/COM/SE306B
CO-PO & CO-PSO Matrix for the Course: Advanced Excel and Data Analysis

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2
CO1	3	2	3	3	3	2	2	3	3	2
CO2	3	2	3	3	3	3	2	2	3	2
CO3	3	2	3	3	2	3	2	3	3	3
CO4	3	2	3	3	2	2	3	3	3	3
Average	3.00	2.00	3.00	3.00	2.75	2.50	2.25	2.75	3.00	2.50

M.A. Education 241/MEDU/SE301

SEMESTER-3

DISABILITY SCIENCE AND INCLUSIVE DEVELOPMENT: A THEORETICAL FRAMEWORK

Course Code: SEC-02
Course Title: Disability Science and Inclusive Development: A Theoretical Framework
Course Id: 241/MEDU/SE 301)
Credits:2 (Hrs./Week: 2)

Maximum Marks: 50
Theory Examination: 20
Internal Assessment: 05
Practical Examination: 20
Practical Assessment: 05
Time: 2hrs.

COURSE OUTCOMES

After completing this course, students will be able to:

1. Understand the meaning and importance of disability in Indian and global contexts.
2. Learn about different types and causes of disabilities.
3. Identify the challenges faced by persons with disabilities in education and daily life.
4. Explore inclusive practices and ways to promote accessibility.
5. Build sensitivity and basic skills for working with individuals with disabilities.

Instructions for Paper Setters (Theory Paper – 20 Marks)

1. A total of **Five questions** shall be set in the question paper.
2. **Question No. 1** will be **compulsory** and shall consist of **4 short answer type questions**, each carrying **1 mark**, covering both units. *(4 × 1 = 4 marks)*
3. The remaining **four questions** shall be divided into **two units**, with **two questions from each unit**.
4. Students will be required to **attempt one question from each unit**. *(2 × 8 = 16 marks)*

Unit 1: Understanding Disability and Its Framework

1.1. Concept of Disability and Inclusion
1.2. Disability in Indian Knowledge System
1.3. Basic Terms: Disability, Impairment, Handicap
1.4. Brief History of Disabilities and Social Role Valorization (SRV)
1.5. Introduction to Models of Disability: Medical, Social, and Human Rights
1.6. Quality of Life and Well-being of Persons with Disabilities
1.7. Role and Scope of Disability Science

Unit 2: Types of Disabilities and Inclusive Practices

2.1. Locomotor Disabilities: Causes and Prevention (Cerebral Palsy, Dwarfism, etc.)
2.2. Sensory Disabilities: Visual, Hearing, and Speech Impairments
2.3. Neuro-developmental Disabilities: Autism, ADHD, Intellectual Disabilities
2.4. Barriers in Daily Life: Physical, Digital, and Social Barriers
2.5. Promoting Inclusion: Simple Strategies for Schools and Communities

Core Readings:

- Crow & Crow (Delhi, Surjeet Publications). *Introduction to Guidance: Basic Principles & Practices.*
- J.C. Aggarwal. *Education, Vocational Guidance & Counseling.* Doaba House.
- John S. Koshy. *Guidance and Counseling.* Dominant Publishers.
- Lester D. Crow & Crow. *Introduction to Guidance and Counseling in India.* Atlantic Publishers.
- S.S. Chouhan. *Principles and Techniques of Guidance.* Vikas Publishing.

Advanced Readings:

- Ainscow, M. (1999). *Understanding the Development of Inclusive Schools.* Routledge.
- Kelly, A. M., Padden, L., et al. (2023). *Making Inclusive Higher Education a Reality.* Routledge.
- Thomas, G., & Vaughan, M. (2004). *Inclusive Education: Readings and Reflections.* Open University Press.
- Jha, M.M. (2002). *School Without Walls: Inclusive Education for All.* Oxford, Heinemann.
- Heward, W.L. (2018). *Exceptional Children: An Introduction to Special Education.* Pearson.

Suggested Practical Activities and Assignments (Choose Any Two)

1. Visit a school or center for children with disabilities and prepare a short reflection report.
2. Conduct a case study of one individual with disability and share their story.
3. Create a simple awareness poster about disability rights and inclusive practices.
4. Interview a teacher or counselor working in inclusive education and summarize your learnings.
5. Review any one policy document (like NEP 2020 or RPWD Act 2016) and present key points.

241/MEDU/SE302

OR

E-CONTENT DEVELOPMENT-II

Course Code: SEC-02
Course Title: e-Content Development-II
Course Id: 241/MEDU/SE 302
Credits:2 (Hrs./Week: 2)

Maximum Marks: 50
Theory Examination: 20
Internal Assessment: 05
Practical Examination: 20
Practical Assessment: 05
Time: 2hrs

COURSE OUTCOMES

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

1. Prepare educational video module tutorials.
2. Integrate multimedia elements such as animations, simulations, and virtual labs to support conceptual clarity.
3. Design self-assessment materials including multiple-choice and true/false questions with answers for e-learning modules.

Instructions for Paper Setters (Theory Paper – 20 Marks)

1. A total of **Five questions** shall be set in the question paper.
2. **Question No. 1** will be **compulsory** and shall consist of **4 short answer type questions**, each carrying **1 mark**, covering both units. *(4 × 1 = 4 marks)*
3. The remaining **four questions** shall be divided into **two units**, with **two questions from each unit**.
4. Students will be required to **attempt one question from each unit**. *(2 × 8 = 16 marks)*

Unit 1: Quadrant-II – Self-Learning Content

1.1. Concept and Purpose of Self-Learning Materials
1.2. Structure of Video Modules: Introduction, Explanation, Examples, Summary
1.3. Multimedia Integration:
1.3.1. Animations and Visuals
1.3.2. Simulations and Virtual Labs
1.3.3. Documentaries and Short Films
1.4. Tools and Platforms for Creating Video Content (e.g., OBS Studio, Powtoon, Edpuzzle)
1.5. Scriptwriting and Storyboarding for Educational Videos

Unit 2: Quadrant-IV – Self-Assessment and Evaluation

2.1. Purpose of Self-Assessment in e-Learning
2.2. Types of Questions: 2.2.1. Multiple-Choice Questions (MCQs) 2.2.2. True/False Statements

2.3. Guidelines for Creating Quality Assessment Items
2.4. Answer Keys and Feedback Mechanisms
2.5. Tools for Designing Online Quizzes (e.g., Google Forms, Kahoot, H5P)

Suggested Readings

- Smith, J. (2022). *Understanding Digital Learning*. XYZ Publications.
- Doe, J. (2021). *Educational Technology in the Modern Classroom*. ABC Press.
- Johnson, E. (2020). *Theories and Practices of Online Education*. EduTech Books.

Web Resources

- Edutopia. (n.d.). Technology Integration. Retrieved from https://www.edutopia.org
- Coursera. (n.d.). Educational Technology Courses. Retrieved from https://www.coursera.org
- Educational Technology and Mobile Learning. (n.d.). Tools and Resources. Retrieved from https://www.educatorstechnology.com
- OER Commons. (n.d.). Open Educational Resources. Retrieved from https://www.oercommons.org

Suggested Practical Activities and Assignments

Task 1: Video Tutorial Creation
Students will develop a 5–7 minute educational video on a chosen topic using animation or recorded lecture format.

Task 2: Quiz Design
Design a quiz with 10–15 multiple-choice or true/false questions aligned with the created video module.

Task 3: Multimedia Integration Exercise
Use tools like Powtoon, Canva Video, or OBS Studio to enhance a short educational concept with multimedia features.

Task 4: Peer Review and Feedback
Exchange video modules among peers and provide structured feedback on content clarity, engagement, and assessment effectiveness.

OR 241/MEDU/SE303

EDUCATIONAL GUIDANCE AND COUNSELLING -II

Course Code: SEC-02
Course Title: Educational Guidance and Counselling -II
Course Id: 241/MEDU/SE 303
Credits:2 (Hrs./Week: 2)

Maximum Marks: 50
Theory Examination: 20
Internal Assessment: 05
Practical Examination: 20
Practical Assessment: 05
Time: 2hrs.

COURSE OUTCOMES

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

1. Identify the importance of various guidance services in educational institutions.
2. Demonstrate effective counselling skills.
3. Conduct activities aimed at coping with stress.
4. Develop competencies in conducting various types of counselling.

Instructions for Paper Setters (Theory Paper – 20 Marks)

1. A total of **Five questions** shall be set in the question paper.
2. **Question No. 1** will be **compulsory** and shall consist of **4 short answer type questions**, each carrying **1 mark**, covering both units. *(4 × 1 = 4 marks)*
3. The remaining **four questions** shall be divided into **two units**, with **two questions from each unit**.
4. Students will be required to **attempt one question from each unit**. *(2 × 8 = 16 marks)*

Unit 1: Guidance Services in Educational Institutions

1.1 Types of guidance services: Orientation, Information, Individual Inventory, Counselling, Placement, Follow-up, Research & Evaluation
1.2 Resources required for organizing guidance services
1.3 Role of teachers and other personnel in school guidance programmes

Unit 2: Counselling Approaches and Stress Management

2.1 Areas of counselling: Vocational, Family, Parental, Adolescent, Girls, Peer counselling
2.2 Skills, qualities, and professional ethics of an effective counsellor
2.3 Stress: Nature, causes, consequences, and types of coping skills
2.4 Measurement of interest, aptitude, intelligence, and personality

Transaction Modes

Seminar, Practicum Activities, Field Visit, E-Tutoring, Peer Group Discussion, Self-Learning, Collaborative Learning, Cooperative Learning

Core Readings

- Gibson, R. L., & Mitchell, M. H. (2008). *Introduction to Counselling and Guidance*. New Jersey: Pearson Prentice Hall.
- Nayak, A. K. (2014). *Guidance and Counselling*. New Delhi: APH Publishing Corporation.
- Sharma, R. N., & Sharma, R. (2013). *Guidance and Counselling in India*. New Delhi: Atlantic Publishers and Distributors (P) Ltd.
- Naik, D. (2007). *Fundamentals of Guidance and Counselling*. New Delhi: Adhyayan Publishers and Distributors.

Advanced Readings

- Gupta, S. (2013). *Guidance and Career Counselling*. New Delhi: APH Publishing Corporation.
- Jothi, S. (2009). *Guidance and Counselling*. New Delhi: Centrum Press.
- Pandey, V. C. (2011). *Educational Guidance and Counselling*. New Delhi: Isha Books.
- Siddiqui, M. H. (2015). *Guidance and Counselling*. New Delhi: APH Publishing Corporation.
- Srivastava, S. K. (2011). *Career Counselling and Planning*. New Delhi: Atlantic Publishers.
- Verma, L. N. (2013). *Educational Psychology – Experimentation in Problems and Methods in Teaching*. Jaipur: Rawat Publications.

Suggested Practical Activities and Assignments

1. Prepare a student inventory for all students in your class.
2. Plan activities to be conducted by the Placement service in your institution.
3. Visit a nearby school and identify how teachers and administration are involved in the guidance programme.
4. Practice basic interviewing skills with a focus on rapport-building and evidence-based counselling relationships.
5. Conduct a case study involving adolescent counselling, counselling of girls, or peer counselling.
6. Organise and participate in programmes for coping with stress such as yoga, meditation, music therapy, community service, etc.
7. Organise programmes for mental health and personality development.

OR 241/MEDU/SE304

COMMUNICATION SKILLS -II

Course Code: SEC-02
Course Title: COMMUNICATION SKILLS -II
Course Id: 241/MEDU/SE 304
Credits:2 (Hrs./Week: 2)

Maximum Marks: 50
Theory Examination: 20
Internal Assessment: 05
Practical Examination: 20
Practical Assessment: 05
Time: 2hrs

COURSE OUTCOMES

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

1. Develop effective reading and writing skills through engagement in communicative tasks.
2. Employ strategies to polish and refine written assignments and reports.

Instructions for Paper Setters (Theory Paper – 20 Marks)

1. A total of **Five questions** shall be set in the question paper.
2. **Question No. 1** will be **compulsory** and shall consist of **4 short answer type questions**, each carrying **1 mark**, covering both units. *(4 × 1 = 4 marks)*
3. The remaining **four questions** shall be divided into **two units**, with **two questions from each unit**.
4. Students will be required to **attempt one question from each unit**. *(2 × 8 = 16 marks)*

Unit 1: Reading Skills

1.1. Reading and providing feedback on term papers and assignments.
1.2. Analyzing academic and professional documents such as prospectuses.
1.3. Reading and reviewing books.

Unit 2: Writing Skills

2.1. Crafting cover letters for job applications.

2.2. CV and resume writing.

2.3. Composing memos, notices, circulars, and web-based communications.

Transaction Modes

Lecture, Seminar, E-Team Teaching, E-Tutoring, Dialogue, Peer Group Discussion, Mobile Teaching, Self-Learning, SOLE (Self-Organized Learning Environment), Collaborative Learning, Cooperative Learning.

Core Readings

- Rutherford, A. J. (2006). *Basic Communication Skills for Technology* (2nd ed.). Pearson Education.
- Hasson, G. (2011). *Brilliant Communication Skills: What the Best Communicators Know, Do and Say* (1st ed.). Pearson Life.
- Ramesh, G. (2010). *The Ace of Soft Skills: Attitude, Communication and Etiquette for Success*. Pearson Education India.
- Mitra, B. K. (2011). *Personality Development and Soft Skills* (1st ed.). Oxford University Press.
- Peters, F. (2011). *Soft Skills and Professional Communication* (1st ed.). McGraw Hill Education.

Advanced Readings

- Dalley, D., Burton, L., & Greenhall, M. (2010). *Developing Your Influencing Skills: How to Influence People by Increasing Your Credibility, Trustworthiness and Communication Skills*. Universe of Learning Ltd.
- Adair, J. (2009). *Effective Communication* (4th ed.). Pan Macmillan.

Suggested Practical Activities and Assignments

1. Presentation of book reviews on academic or professional literature.
2. Practice interpreting and summarizing sample reports and proposals.
3. Drafting cover letters and resumes tailored for different job roles.
4. Writing formal memos, notices, and circulars in real-life institutional contexts.
5. Conducting peer reviews and feedback sessions on written documents.
6. Participating in group discussions or mock interviews to enhance communication and confidence.

241/HIS/SE301

SEC-02	ARCHIVES AND MUSEUMS

Credits:2

Maximum Marks :50
Theory Examination:35
Internal Assessment :15
Examination Time: 2 hrs

Note : **The students will be required to attempt five questions in all.**
Question No.1 will be compulsory comprising of 7 short answer type question of 1 mark each and will cover the entire syllabus 7x1=7 marks. In addition to it Question Nos. II to XI will consist of long answer (essay type) questions , four Questions from each Unit with internal choices carrying 7 marks each Ie 4x7= 28 marks thus making it the total weight age to 50 marks. Four long questions to be attempted. Two from each unit .

Learning Outcomes: Upon completion of this course the student should be able to:-

CO1: Understand the basic concepts and their types.
CO2: Explain how the documents and artefacts are preserved and the difficulties faced the process.
CO3: Demonstrate the way in which museums are organized and managed.
CO4: Examine the considerations which govern the way exhibitions in museums are managed.

Unit 1

Definition of Archives and Museum Types : Official Records, crafts, media, digital, virtual: difference between Archives, Museum and Library; New kinds of Museums and Archives.

Unit 2

History of setting up of museums and Archives: Case study of Indian Museum Calcutta, Salarjung Museum, Hyderabad and National Museum, Delhi (Project: At least one case study). Case study of Archives: National Archives of India, Delhi . Haryana State Archives, Panchkula (At least one case study)

Note: A visit to a museum and/or archive is desirable from students.

ESSENTIAL READINGS:

- A Guide to the National Museum. New Delhi:National Museum, 1997.
- Agarwal, O.P. Essentials of Conservation and Museology. Delhi: Sundeep Prakashan, 2007.
- Agarwal, O.P. Pustakalaya Samagri Aur Kala-VastuonKaParirakshan. Delhi: NBT, 1999.
- Edson, G. and D. David. Handbook for Museums. London: Routledge, 1986.
- GuhaThakurta, Tapati. Monuments, Objects, Histories: Institutions of Art in Colonial India. Delhi: Permanent Black, 2004.
- Kathpalia,Y.P. Conservation and Restoration of Archive Materials. UNESCO, 1973.
- Ridener, J. From Foiders to Post Modernism: A Concise History of Archival Theory. LLC: Litwin Books, 2009.

241/EVS/SE30

M.Sc. ENVIRONMENTAL SCIENCE – SEMESTER- III
SUBJECT NAME: GLOBAL ENVIRONMENTAL ISSUES
Course code: SEC-2
Course ID: 241/EVS/SE2
NO. OF CREDITS: 2

L	T	P
2	0	0

TE : 50
Total : 50

Note: 1. Nine questions will be set in all. All questions will carry equal marks.
2. Question no. 1 which will be short answer type, covering the entire syllabus will be compulsory. The remaining eight questions will be set unit wise selecting two questions from each unit I to IV. The candidates will be required to attempt question no.1and four more questions.

Course Outcomes:

CO1: Develop perspective on important environmental issues that have become a matter of global policy making, international negotiations and trade disputes.

CO2: Develop critical thinking on the links between environment, property regimes, trade and information economies.

UNIT I: Climate Change:
Key concerns in the climate change debate, scientific and political conflicts concerning their impacts on natural resources, food production etc. and the techno-economic measures being used to reduce greenhouse emissions.

UNIT II: Impact on War and Terrorism on the Environment
Nuclear Winter: Environmental Consequences of Nuclear War; Chemical & Biological Warfare; Impact of Nuclear Weapon Tests; Use of Depleted uranium shells; Impact of Destruction of Nuclear power plants; Burning of oil wells; Destruction of Chemical plants. Use of Incendiary Bombs (Napalm).

UNIT III: Wastes
Regional and international frameworks for regulating trade in wastes, especially toxics. Policies and environmental activism around trade in toxic wastes such as asbestos, PVCs, lead, mercury, electronic wastes and other chemicals.

UNIT IV: Global Environmental Issues in Industry
Business – Environment Debate, Ozone Depletion and Environment Change, International Business, Globalization and Sustainable Development, Environmental Management Norms and Certification, International Environmental Management Systems, Kyoto Protocol (1997); Paris Agreement (2016); Clean Development Mechanism (CDM).

Reference Books:

1. Kemp, D.D. 1990. Global Environmental issues: A climatologized approach, Taylor and Francis, London.
2. Makofske, W.J. and Karlin, E.F. 1995. Technology and Global Environmental issues, Addison Wesley, Longman, Toronto.
3. Smith, P. and Warr, K. 1991. Global Environmental issues, Hodder and Stoughton, London. Susskind, L. et. al. (eds). 2002. Trans-boundary Environmental Negotiation: New Approaches to Global Cooperation.
4. Toman,M. (ed). 2002. Climate change, Economics and Policy, Cambridge University Press.

241/NEU/SE301

(Semester III) SKILL ENHANCEMENT COURSE: SOFT SKILLS AND CAREER PREPARATION

Skill Enhancement Course (Lectures 28)	Maximum Theory Marks: 50
Time Allowed: 3 Hrs	External Marks: 35
Credits: 2	Internal Assessment: 15

Instructions for Paper Setter: The examiner will set nine questions in all with two questions from each section. Q. No. 1 consisting of very short answer type questions and covering the entire syllabus will be compulsory. Each question will be divided into parts and the distribution of marks will be indicated part-wise. The candidates will be required to attempt Q. No. 1 & four others, selecting one from each section.

Unit-I: Emotional Intelligence & Interpersonal Skills **Lectures: 7**
Understanding emotional intelligence (EQ) and its relevance in research and teamwork; Building empathy and active listening; Conflict resolution and giving/receiving constructive feedback; Cultivating adaptability and resilience in challenging situations

Unit-II: Digital Literacy & Professional Tools **Lectures: 7**
Using LinkedIn and ResearchGate for networking and visibility; Creating e-portfolios and digital resumes; Managing virtual collaborations (Zoom, Google Workspace, Slack, etc.); Introduction to research tools (Google Scholar, PubMed, ORCID, SciHub responsibly)

Unit-III: Career Planning & Interview Skills **Lectures: 7**
Resume/CV writing for research and industry roles; Statement of purpose (SOP) and cover letter writing; Interview preparation and mock interviews; Identifying career paths: academia, industry, data science, clinical research

Unit-IV: Professionalism, Ethics & Work Skills **Lectures: 7**
Time management and productivity tools; Research and workplace ethics; Collaboration and leadership in labs and projects; Stress management and work-life balance

Suggested Books:

1. Daniel Goleman – Emotional Intelligence: Why It Can Matter More Than IQ
2. Cal Newport – Deep Work: Rules for Focused Success in a Distracted World
3. Dorie Clark – Reinventing You: Define Your Brand, Imagine Your Future
4. Richard Nelson Bolles – What Color Is Your Parachute? A Practical Manual for Job-Hunters and Career-Changers
5. Barbara Oakley – A Mind for Numbers: How to Excel at Math and Science

241/MCA/SE301

Course code	SEC-2			
Category	Skill Enhancement Course			
Course title	**Mobile Application Development**			
Course ID	241/MCA/SE301			
Scheme and Credits	L	T	P	Credits
	1	-	2	2
Theory Internal	30			
Theory External	70			
Total	100			
Duration of Exam	**3 hours**			

Note: *The examiner will set nine questions in total. Question one will have seven parts from all units and the marks of first question will be of 20% of total marks of Question Paper and the remaining eight questions to be set by taking two questions from each unit and the marks of each question from Question no. 2 to 9 will be 20% of total marks of Question paper. The students have to attempt five questions in total, the first being compulsory and selecting one from each unit.*

COURSE OUTCOMES:

CO1: Understand the basic concepts and functions of Mobile Application and Android Studio.

CO2: Describe the working and architecture of Android Operating System.

CO3: Design Android UI Layout and Describe activities.

CO4: Design and develop an application using Database.

UNIT I

Android Architecture: Introduction to Android, Features of Android, Android Architecture, Android and File Structure, Layouts – Linear, Relative, Grid and Table Layouts, Views and Resources, Activities and Intents, Activity Lifecycle and Saving State,

User Interface (UI) Components – Editable and non-editable Text Views, Buttons, Radio and Toggle Buttons, Checkboxes, Spinners, Dialog and pickers, List View, Spinner View.

UNIT II

Event Handling – Handling clicks or changes of various UI components.

Intent – Using intents to launch Activities, Explicitly starting new Activity, Implicit Intents, Passing data to Intents, Getting results from Activities, using Intent to dial a number or to send SMS.

UNIT III

Fragments – Creating fragments, Lifecycle of fragments, Fragment states, Adding fragments to Activity, adding, removing and replacing fragments with fragment transactions

Location and Mapping: Location based services, Mapping, Google Maps activity, Working with MapView and MapActivity; Playing and Recording of Audio and Video in application.

UNIT IV

Persisting Data to files: Saving to Internal Storage, Saving to External Storage

Introduction to SQLite database: creating and opening a database, creating tables, inserting retrieving and deleting data.

Application Signing, API keys for Google Maps, Publishing application to the Android Market.

Textbooks & References:

1. ZigurdMednieks, Laird Dornin, G,BlakeMeike and Masumi Nakamura, Programming Android, O'Reilly Publications.
2. Wei-Meng Lee, Beginning Android Application Development, Wiley India Ltd.
3. Burd, B. Android Application Development All-in-One for Dummies.
4. James C.S., Android Application development for Java Programr, CENGAGE Learning.
5. Pradeep Kothari, Android Application Development: Black Book, Wiley India Ltd.

Mobile Application Development Lab

List of Experiment

1. Installation of Android studio.
2. Development Of Hello World Application
3. Create an application that takes the name from a text box and shows hello message along with the name entered in text box, when the user clicks the OK button
4. Create a screen that has input boxes for User Name, Password, Address, Gender(radio buttons for male and female), Age (numeric), Date of Birth (Date Picket), State (Spinner) and a Submit button. On clicking the submit button, print all the data below the Submit Button (use any layout)
5. Design an android application Using different layouts
6. Design an android application to create page using Intent and one Button and pass the Values from one Activity to second Activity
7. Design an android application Send SMS using Intent
8. Create an android application using Fragments
9. Design an android application for menu.
10. Create a user registration application.

241/MBABA/SE301

Advanced Excel

PAPER CODE:

Credits: 1-0-1

Theory External: 20

Theory Internal: 5

Practical External: 20

Internal Marks: 5

Time Allowed: 2 HRS

Type of Course: Skill Enhancement Course

Course Objective:

This course equips students with advanced proficiency in Excel for data handling, visualization, statistical analysis, and decision-making. It covers functional tools, charting, pivoting, dashboard creation, and AI-based enhancements to enable effective data-driven solutions.

Course Outcomes (COs):

- **CO1:** Use workbooks, sheets, and Excel interface features for efficient data handling and formatting.
- **CO2:** Apply built-in functions and formatting tools to analyze and organize data effectively in tables.
- **CO3:** Create, format, and interpret various charts and dashboards for data visualization and storytelling.
- **CO4:** Perform data analysis using statistical tools and integrate AI features in Excel to generate dynamic, interactive reports.

Syllabus

Unit I: Working with Sheets , Function & Formatting

Workbooks and Worksheets, Ribbon tabs, Using Shortcut Menus, Working with Dialogue Boxes, Task Panes, Exploring Data Types, Modifying Cell Contents, Comparing sheets side by side, special types of cells, Paste Special dialogue box, Adding comments to cells. Formatting tools on the Home tab, Mini Toolbar, Fonts, Statistical Functions, Text Functions, other functions, Colors and Shading, Borders and Lines, conditional formatting, Working with tables, Selecting parts of a Table, Sorting and filtering a table, Converting Table into Range.

Unit II: Visualization

Creating charts, Pie, Line, Bar, histogram, Boxplot, Scatter plot, data bars, waterfall charts, Area charts, Dynamic Charts, and other charts, Legends ad formatting wit charts, Labeling carts, 3D charts, Sparkline, Time series plot, Dashboarding, Score Cards.

Unit III: Mastering Advanced Excel Techniques

Enhance data skills analysis, Data Tables, Goal Seek, and Data Validation. Utilize advanced functions like VLOOKUP, XLOOKUP. Pivot Table, Pivot Charts, Data Validation and Scenario Manager.

Unit IV : Data Analysis

Data Analysis Tab, Descriptive Statistics, t-test, ANOVA, Correlation, Covariance, Random Number generation, sampling, what-if Analysis tab, AI integration with excel, Design interactive reports with dynamic visualizations and AI insights, Customize AI-generated charts.

Resources & Reading List

- Michael Alexander & Dick Kusleika, 2019, *Excel 2019 Bible: The Comprehensive Tutorial Resource*, Wiley.
- Paul McFedries, 2021, *Excel Data Analysis for Dummies*, Wiley.
- Jordan Goldmeier & Purnachandra Duggirala, 2019, *Dashboards for Excel*, Apress.
- M. Kabir Hassan, 2020, *Mastering Data Analysis in Excel*, Springer.
- Wayne Winston, 2019, *Microsoft Excel Data Analysis and Business Modeling*, Microsoft Press.
- Szilvia Juhasz & Andrei Besedin, 2020, *AI and Excel: Boost Your Productivity*, Leanpub.

Mapping Matrix of Course:

Table 1: CO-PO & CO-PSO Matrix for the Course : Advanced Excel

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2
CO1	3	1	1	2	2	2	1	2	2	3
CO2	2	3	2	3	3	2	2	1	3	3
CO3	3	2	2	3	3	2	1	2	2	2
CO4	3	2	3	2	3	1	2	3	2	2
Average	2.75	2	2	2.5	2.75	1.75	1.5	2	2.25	2.5

241/MBA/SE301

Detailed Syllabus

Design Thinking

Credits: 2

External Marks: 40 (20T+20P)

Internal Marks: 10 (5T+5P)

Type of Course: Skill Enhancement Course

Type of Course: Skill Enhancement Course

Course Objectives:

Design thinking is a systematic approach for innovative product and process development, which aims at fulfilling the unmet customer needs. It is a human-centric approach designed to understand customers' pain points and create an innovative solution that fulfills the need gap. The approach to design thinking includes concept development, applied creativity, prototyping and systematic experimentation until an innovation solution is identified. When design thinking is applied to businesses, the success rate for innovation improves dramatically.

Course Outcomes:

On the completion of this course the student will be able to:

CO1. Understand the practical design thinking methods in every stage of critical problem solving.
CO2. Apply design thinking to critical problems in order to generate innovative and user centric solutions.
CO3. Formulate new working culture based on a user centric approach, empathy, ideation, prototyping and playful testing and analyze and evaluate the viability of solutions under the prevalent global business environment
CO4. Create analysis methods, such as interviews and surveys.

DETAILED SYLLABUS:

UNIT I

Innovation & Creativity: Difference between innovation and creativity, Role of creativity and innovation in organizations, dynamics of creative thinking, becoming creatively fit as an individual, creative insight, idea generation, idea evaluation,

creativity in teams, team's environment and creativity, creating climate for creativity and an enterprise, creating an environment that keeps creative people creating, managing creative employees, leading for creativity and innovation, creativity to innovation

Unit II

Creative thinking techniques: Select and apply the appropriate technique, Comprehend their importance in tackling everyday problem-solving scenarios, Divergent Thinking Mode: Meaning, Objectives Tools and Technique, Convergent Thinking Mode: Meaning, Objectives Tools And Techniques.

Unit III

Design Thinking Process: Introduction to design thinking, history of design thinking, wicked problems, case studies in design thinking, design thinking process, implementing the process in driving innovation, design thinking in social innovations Tools of design thinking – persona, customer journey map.

Unit IV

Design Thinking in Various Sectors (Health sector/ Finance/ Education/ Infrastructure) Design thinking case studies in retail, design thinking case studies in banking, design thinking case studies in management decisions.

SUGGESTED READINGS:

1. Hundred Things every designer needs to know about people – Susan WeinsChenk, New Riders Publication
2. Design Methods: A Structured Approach for Driving Innovation in Your Organization by Vijay Kumar, Wiley Publication
3. Design of Business: Why Design Thinking is the Next Competitive Advantage by Roger L. Martin, Harvard Business Press.

Mapping Matrix of Course: Design Thinking

Table 1: CO-PO & CO-PSO Matrix for the Course: Design Thinking

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2
CO1	3	2	2	2	2	3	2	2	2	2
CO2	3	2	2	3	3	2	2	3	2	2
CO3	2	2	3	3	2	2	3	3	3	3
CO4	2	2	3	2	3	2	2	2	2	2
Average	2.5	2	2.5	2.5	2.5	2.25	2.25	2.5	2.25	2.25

241/JMC/SE301

MA(JMC)
SEMESTER -3

Name of Subject: **Graphic Designing**		
Subject Code: SEC-02	Course ID: 241/JMC/SE-302	Maximum Practical Marks: 50 (15 35)

Objective: To equip students with a comprehensive understanding of graphic designing principles and practices, encompassing typography, layout design, colour theory, and creative problem-solving. The course aims to prepare students to apply these skills effectively in professional graphic design contexts.

Outcomes:

Students will be able to:
1. Understand fundamental and advanced principles of graphic design.
2. Build a professional portfolio demonstrating diverse design projects and techniques.

COURSE CONTENTS:

Unit 1: Fundamentals of Graphic Design
1.1 Introduction to Graphic Design Principles
1.2 Typography and Type Design
1.3 Color Theory and Application
1.4 Layout Design and Composition
Unit 2: Advanced Techniques in Graphic Design
2.1 Visual Identity and Branding
2.2 Packaging Design and Product Communication
2.3 Publication Design: Magazines, Books, and Digital Formats
2.4 Designing for Web and Interactive Media

Suggested Readings

1. Advertising by Design: Generating and Designing Creative Ideas Across Media" by Robin Landa
2. Graphic Design, Hindi Edition by Narendra Singh Yadav
3. Patterns: Design and Composition by M.A Hann, I.S. Moxon

241/Eco/SE301

SEC	Data Analysis (through MS Excel)

Maximum Marks: 50 **External written Exam: 25**
External Practical: 10 **Internal Assessment: 10**
Internal Practical: 05
Credits:2
Note for Paper Setter
1. Five Questions will be set in all, and students will be required to attempt 3 questions.
2. Question No. 1 will be compulsory and will consist of 3 short answer type questions of 3 marks spread over the entire syllabus (3x3=09 marks).
3. For the remaining two questions, students will attempt 1 out of 2 questions from each of the two units (08 marks each).

Course Learning Outcomes: After completing this course, the learner will be able to:

CLO 1: Understand and apply the measures of central tendencies and interpret their significance in summarizing data sets.
CLO 2: Compute and interpret mean deviation, standard deviation, and coefficient of variation to assess the spread and consistency of data.
CLO 3: Understand the concept of correlation and calculate & interpret correlation coefficients.
CLO 4: Understand the concepts of simple and multiple linear regression along with the application of simple linear regression and interpret the regression coefficient
CLO 5: Understand the key elements of hypothesis testing

NOTE: The theory paper will be set on the basic concepts and simple numerical examples. In the practical classes the students to learn the following concepts through MS Excel. Internal practical and External practical exam to include the performance on practical usage of MS Excel.

UNIT-I

Basic Measures of Central Tendency and Dispersion- Arithmetic Mean, Median, Mode, Mean Deviation, Standard Deviation, Coefficient of Variation and Lorenz Curve.
Correlation: Meaning and types, Methods of measurement: Graphic, Algebraic (Karl Pearson, Spearman)

UNIT-II

Basic Concept of Simple and Multiple Linear Regression, Application of simple linear regression, Coefficient of determination, Difference between correlation and regression
Testing of Hypothesis- Basic Concept of Hypothesis testing (Null Hypothesis, Alternative Hypothesis, Type-1 and Type -II Errors, Level of Significance, Critical Region or Rejection Region, Critical Value), Procedure of testing a hypothesis

Reading List

- Aggarwal, B.L. (2006). Basic Statistics. New Age International Publishers, New Delhi.
- Gupta, S.C. & Kapoor, V.K. (2007). Fundamentals of Applied Statistics. S. Chand and Sons, New Delhi.
- Naghshpour, S. (2012). Statistics for Economics. Business Expert Press.
- Sharma, J.K. (2012). Business Statistics. Dorling Kindersley (India) Pvt. Ltd., New Delhi

15

241/CS/SE301

NUMERICAL ABILITY AND ENHANCEMENT SKILLS

Semester	3			
Course code	SEC-02			
Category	Skill Enhancement Course			
Course title	Numerical Ability & Enhancement Skills			
Course ID	241/CS/SE301			
Scheme and Credits	L	T	P	Credits
	2	0	0	2
Theory Internal	15 marks			
Theory External	35 marks			
Total	50 Marks			
Duration of Exam	3 hours			

Note: *The examiner will set nine questions in total. Question one will have seven parts from all units and the marks of first question will be of 20% of total marks of Question Paper and the remaining eight questions to be set by taking two questions from each unit and the marks of each question from Question no.2 to 9 will be of 20% of total marks of Question paper. The students have to attempt five questions in total, the first being compulsory and selecting one from each unit.*

COURSE OUTCOMES:

At the end of this course, students will demonstrate the ability to

CO1: Understand real number system, fundamental arithmetical operations, use of BODMAS rule and solve typical expressions accurately and fast

CO2: Acquire skill to identify types of given sequences/series and apply suitable method to find a particular term, sum of specific number of terms and practice this learning in real life mathematical problems.

CO3: To formulate equations for specific mathematical problem and making use of mathematical skills to solve that.

CO4: Have a deeper and comprehensive understanding of the basic concepts of Percentage, Profit & Loss, Alligation or mixture, Averages and acquire skill to use this knowledge in real life problems.

CO5: Attain cognitive and analytical skills to identify, analyze and generate solutions to realistic problems by exploring procedural knowledge associated with the problems. Have analytical skills to compare and recognize various geometrical figures available in surroundings with mathematical figures and determine areas and volumes of the same.

UNIT - I

Real number system, Operations on numbers, Tests for divisibility of natural numbers, Decimals, Fractions, Square roots, Cube roots, Surds and indices, Use of BODMAS.

UNIT – II

HCF, LCM of integers, Ratio and Proportion, Progressions: Arithmetic Progression, Geometric Progression, Harmonic Progression with their simple and basic practical applications, Number series completion.

UNIT – III

Percentage, Profit & Loss, Alligation or mixture, Average, Average speed problems, Calendar.

UNIT - IV

Logarithms, Area of Quadrilaterals (Parallelogram, Square, Rectangle, Rhombus, Trapezium), Volume and surface area of Cube, Cuboid, Cylinder, Cone, Sphere and Hemisphere.

BOOKS:

1. R. S. Aggarwal (2022). Quantitative Aptitude. S Chand & Company Limited, New Delhi.
2. A. Guha (2020). Quantitative Aptitude (7 th Edition). Mc Graw Hill Publications.
3. V. Dyke, J. Rogers and H. Adams (2011). Fundamentals of Mathematics, Cengage Learning.
4. A.S. Tussy, R. D. Gustafson and D. Koenig (2010). Basic Mathematics for College Students. Brooks Cole.
5. C. C. Pinter (2014). A Book of Set Theory. Dover Publications.
6. G. Klambauer (1986). Aspects of calculus. Springer-Verlag.

241/PHY/SE301

Skill Enhancement Course(s)

COURSE ID: 241/PHY/SE301

DIGITAL ELECTRONICS AND APPLICATIONS

Marks (Theory): 35 **Credits: 2**

Marks (Internal Assessment): 15 **Time: 2 Hours**

Note: The examiner will set 9 questions asking two questions from each unit and one compulsory question by taking course learning outcomes (CLOs) into consideration. The compulsory question (Question No. 1) will consist of at least 4 parts covering entire syllabus. The question paper is expected to contain problems to the extent of 40% of total marks. The examinee will be required to attempt 5 questions; selecting one question from each unit and the compulsory.

Course Outcomes:

After successful completion of the course on Digital Electronics and Applications, a student will be able to:

- *Understand the fundamental differences between analog and digital circuits and demonstrate proficiency in number systems and logic gates, including Boolean algebra and De Morgan's theorems.*
- *Apply Boolean laws, truth tables, and simplification techniques such as the Sum of Products and Karnaugh Map to design and implement combinational logic circuits.*
- *Analyze and design data processing and arithmetic circuits including multiplexers, demultiplexers, encoders, decoders, binary adders, subtractors, and logic-based arithmetic operations using 2's complement method.*
- *Understand the operation and application of various flip-flops (SR, D, JK), including clocked and edge-triggered types, and identify race-around conditions and solutions using master-slave configurations.*
- *Design and implement sequential logic circuits using shift registers and counters (asynchronous and synchronous) and understand their use in digital system design.*

Unit – I

Digital Circuits and Boolean algebra: Difference between Analog and Digital Circuits, Binary Numbers, Decimal to Binary and Binary to Decimal Conversion, AND, OR, NOT, NAND, NOR, XOR and XNOR Gates, De Morgan's Theorems, Boolean Laws, Conversion of Truth table into Equivalent Logic Circuit by (1) Sum of Products Method and (2) Karnaugh Map.

Unit-II

Data processing and Arithmetic Circuits: Multiplexers, De-multiplexers, Decoders, Encoders, Binary Addition, Binary Subtraction using 2's Complement, Half and Full Adders, Half & Full Subtractors.

Unit – III

Sequential Circuits: SR, D, and JK Flip-Flops, Clocked (Level and Edge Triggered), Preset and Clear operations, Race-around conditions in JK Flip-Flop, M/S JK Flip Flop.

Unit – IV

Shift registers and Counters (4 bits): Serial-in-Serial-out, Serial-in-Parallel-out, Parallel-in-Serial-out and Parallel-in- Parallel-out Shift Registers, Ring Counter, Asynchronous counters, Decade Counter, Synchronous Counter.

References/Books:

1. Digital Principles and Applications, A.P.Malvino, D.P.Leach and G. Saha, 8th Ed., 2018, Tata McGraw Hill Education
2. Fundamentals of Digital Circuits, Anand Kumar, 4th Edn, 2018, PHI Learning Pvt. Ltd. Digital Circuits and systems, Venugopal, 2011, Tata McGraw Hill
3. Microprocessor Architecture Programming & applications with 8085, 2002, R.S. Goankar, Prentice Hall.
4. Digital Computer Electronics, A.P. Malvino, J.A. Brown, 3rd Edition, 2018, Tata McGraw Hill Education. 53
5. Digital Design, Morris Mano, 5th Ed. Pearson.

241/MAT/SE 301

M.Sc. MATHEMATICS 3rd SEMESTER

LaTeX

SEC-02
Credits: 2(1L+1P)
Max. Time: 2 hrs.
Course ID:

Maximum Marks: 50
Theory External: 20
Theory Internal: 05
Practical External: 20
Practical Internal: 05

Note: *There shall be nine questions in all. Question no. 1 shall be compulsory, consisting of seven short answer type questions covering the entire syllabus. Two questions will be asked from each unit. Students will have to attempt one question from each unit. Each question shall carry equal marks.*

Course Learning Outcomes:

CLO1 Understand the fundamentals of LaTeX and create structured documents with appropriate formatting and organization.

CLO2 Apply packages and features to enhance document layout, footnotes, tables, and navigation tools like table of contents.

CLO3 Typeset complex mathematical expressions, insert figures and plots, and visualize data using LaTeX tools.

CLO4 Compile bibliographies, cite references, use multi-file projects, and prepare professional presentations and reports in LaTeX.

Unit-I

Introduction to LaTeX: Purpose of LaTeX, advantages over word processors, introduction to typesetting systems, setting up LaTeX environments (TeX Live, MiKTeX, Overleaf), writing the first `.tex` document, document structure (preamble, body, compiling), formatting text, font styles and sizes, sections, subsections, and paragraphs.

Unit-II

Structuring and Enhancing Documents: Using LaTeX packages, creating lists (itemized, enumerated, description), inserting footnotes and margin notes, working with headers and footers, setting page margins, generating a table of contents, list of figures and tables, cross-referencing using labels, and designing professional tables.

Unit-III

Mathematics and Graphics in LaTeX: Mathematical typesetting: inline and display math modes, commonly used symbols, equation arrays, `amsmath` package, inserting and positioning images using `graphicx`, captions, figure references, plotting graphs using `pgfplots` and `tikz`, creating diagrams and flowcharts.

Unit-IV

Citations, Bibliographies, and Advanced Applications: Creating bibliographies with `bibtex` and `biblatex`, in-text citations, bibliography styles (APA, IEEE, etc.), custom commands and environments, using `beamer` for presentations, writing research articles and theses, exporting to PDF.

Recommended Books:

1. S. Kottwitz, *LaTeX Beginner's Guide*, Packt Publishing Ltd., 2011.
2. H. Kopka and P.W. Daly, *Guide to LaTeX*, Pearson Education, 2003.

14/05/25

3. F. Mittelbach *et al.*, *The LaTeX Companion*, Addison-Wesley Professional, 2004.
4. D.F. Griffiths and D.J. Higham, *Learning LaTeX*, Society for Industrial and Applied Mathematics, 2016.

14/05/25

241/MAT/SE302

M.Sc. MATHEMATICS 3rd SEMESTER

Python for Statistical Analysis

SEC-02
Credits: 2(1L+1P)
Max. Time: 2 hrs.
Course ID:

Maximum Marks: 50
Theory External: 20
Theory Internal: 05
Practical External: 20
Practical Internal: 05

Note: *There shall be nine questions in all. Question no. 1 shall be compulsory, consisting of seven short answer type questions covering the entire syllabus. Two questions will be asked from each unit. Students will have to attempt one question from each unit. Each question shall carry equal marks.*

Course Learning Outcomes:

CLO1 Develop fundamental programming skills in Python, including syntax, control structures, and basic input-output operations.

CLO2 Efficiently manipulate and analyze data using essential Python libraries such as NumPy and Pandas.

CLO3 Apply data visualization techniques to represent data insights using Matplotlib and Seaborn.

CLO4 Implement basic statistical analysis using Python, including descriptive statistics, hypothesis testing, and data visualization for statistical insights.

Unit-I

Introduction to Python and Basic Concepts: Installation, IDEs (Jupyter Notebook, VS Code), Basic Syntax: Variables, Data Types, Operators, Control Structures: Conditional Statements (if, else), Loops: for and while loops, Basic Input and Output, Functions: Definition, Calling, Parameters, Return Values, Simple Exercises: Basic calculations, conditional logic.

Unit-II

Data Structures and Manipulation: Lists, Tuples, Sets, and Dictionaries, Accessing, Modifying, and Iterating through data structures, Comprehensions: List and Dictionary Comprehensions, File Handling: Reading from and Writing to Files, Introduction to Libraries: Importing and Using Packages (like NumPy), Basic Data Manipulation with Lists and Dictionaries, Simple Exercises: Reading data from files, basic data processing.

Unit-III

Data Handling and Visualization: Working with Numpy for Numerical Operations, Introduction to Pandas for Data Frames and Data Handling, Data Cleaning and Preprocessing: Handling Missing Values, Basic Data Visualization with Matplotlib and Seaborn, Creating Line, Bar, and Scatter Plots, Simple Exercises: Creating plots from data, basic data analysis.

Unit-IV

Basic Statistical Analysis with Python: Introduction to Statistical Concepts: Mean, Median, Mode, Variance, Stand
ard Deviation, using Python Libraries for Statistical Analysis: Scipy and Statsmodels, Descriptive Statistics with Pandas, Data Visualization for Statistical Insights: Boxplots,

14/05/25

Histograms, Simple Hypothesis Testing: t-test, Chi-Square Test, Practical Examples: Analyzing simple datasets for insights.

Recommended Books:

1. W. McKinney, *Python for Data Analysis: Data Wrangling with Pandas, NumPy, and IPython*, O'Reilly Media, Inc., 2012.
2. P. Bruce and A. Bruce, *Practical Statistics for Data Scientists*, O'Reilly Media, Inc., 2020.
3. A.B. Downey, *Think Stats: Exploratory Data Analysis in Python*, O'Reilly Media, Inc., 2014.
4. J. VanderPlas, *Python Data Science Handbook*, O'Reilly Media, Inc., 2016.
5. A.C. Müller and S. Guido, *Introduction to Machine Learning with Python*, O'Reilly Media, Inc., 2016.
6. M. Lutz, *Programming Python*, O'Reilly Media, Inc., 2001. *(Supplementary reference for core Python concepts).*

14/05/25

241/SOC/SE301

Semester-III

SEC-2 Social Enterpreneurship
Credit-2

Maximum Marks –50
Theory – 35
Internal Assessment – 15
Time – 2 hours

The students will be required to attempt three questions in all. Question No. I will be compulsory comprising of 8 short answer type questions of 3 marks each and will cover the entire syllabus. The answer should be in 100-200 words.The students are required to attempt five short answer type questions out of 8,i.e., 5X 3 = 15 marks. In addition to it, Question Nos. II to V will consist of long answer (essay type) questions, two Questions from each Unit with internal choice carrying 10 marks each i.e. 2 X 10 = 20 marks thus making it the total weight age to 35 marks .Two questions to be attempted. One from each unit.

Course Outcomes:

- Students would be able to learn about fundamentals of Social Entrepreneurship.
- Students would get exposure to Trends in Social Entrepreneurship.

UNIT-I

Fundamentals of Social Entrepreneurship: Concept of Social entrepreneur & entrepreneurship – Evolution, Need, Major Functions, Difference between Social and Commercial entrepreneurs, Areas of Social Entrepreneurship.

UNIT – II

Trends in Social Entrepreneurship: Major challenges, Major opportunities, Role of Government for growth of social entrepreneurship in country, Global trends in social entrepreneurship, Contribution of Successful Social entrepreneurs of India and Abroad.

References:

Baporikar.N. 2015. 'Entrepreneurship Development and Project Management' Himalayan Publishing House.
Bornstein. D.2004. 'How to change the world: social entrepreneurs and the power of new ideas' New York, Ny: oxford university press.
Bournstein, D. &Devis, S. 2016. 'Social Entrepreneurship'Oxford University Press.
Fasiki, H.E. 2011. 'Social Entrepreneurship – Meaning, Challenges and Strategies' Lambart Academic Publication
Gupta, C.B. and Shrinivasan, N.P. 2020. 'Entrepreneurial Development' Sultan Chand & Sons.
Hisrich, R. (2011). Entrepreneurship. Tata McGraw-Hill, New Delhi
Khanka. S.S. 2009. 'Entrepreneurship in India: the next big perspective and practice, Akansha publishing house, New Delhi.
Lussier, R. N., Corman, J., and Kimball, D. (2014). Entrepreneurial New Venture Skills.Routledge, New York:

Sharma, S. (2016). Entrepreneurship Development. PHI Learning Pvt. Ltd, New Delhi:
Soota, A., and Gopalan, S. R. (2016). Entrepreneurship Simplified: From Idea to IPO. Penguin , UK
Vaidya, S. (2014). Developing Entrepreneurial Life Skills: Creating and Strengthening Entrepreneurial Culture in Indian Schools. Springer Science and Business Media, New Delhi

241/ZOO/SE301

ZOOLOGY: SEMESTER-III								
Course Code	**Course ID**	**Course Title**	**Credit**	**Contact Hours/Week**	**Internal Assessment marks**	**End Term Marks**	**Max. Marks**	**Exam Duration**
SEC-1	241/ZOO/SE30	**Medical Physiology**	1	1	5	20	25	3 hr
			1	2	5	20	25	

Course Learning Outcomes (CLO)

1. Students will understand the concept of medical physiology
2. Students will gain knowledge about the composition and function of blood.
3. Students will be able to learn nervous system and special sense
4. Students will develop knowledge about homeostasis and feedback mechanisms

Instructions for Paper-Setter

1. Five questions will be set in all. All questions will carry equal marks.
2. Question No. 1, which will be short answer type covering the entire syllabus, will be compulsory. The remaining four questions will be set unitwise selecting two questions from each Unit . The candidate will be required to attempt question No. 1 and two more questions selecting one question from each unit.

UNIT	TOPICS	CONTACT HOURS
I	Introduction to physiology, Nerve muscle physiology, Composition and function of blood, physiology of gastrointestinal tract, Respiratory system	8
II	Physiology of cardiovascular system, Endocrine system, Reproductive system, Excretory system, Nervous system and special sense	7
Practical	**I) Haematology:** a) Compound microscope. b) Preparation of blood film. c) StainingwithLeishman's stain. d) Identification of blood cell. e) Differential count of WBC. f) Total count of WBC. g) Total count of RBC. h) Haemoglobin estimation. i) Total count of platelets. j) Blood grouping. k) Bleeding time and clotting time. I). Haemin crystal. m) Demonstration of: PCV, ESR, Osmotic fragility, Prothrombin time.	30

Learning Resources

1. Medical physiology → A. C. Guyton
2. Review of medical physiology → W. F. Ganong
3. Human physiology → Vander, Sherman & Luciano

241/BOT/SEC301

BOTANY: SEMESTER-III								
Course Code	Course ID	Course Title	Credit	Contact Hours/Week	Internal Assessment marks	End Term Marks	Max. Marks	Exam Duration
SEC-02 2 credit	241/BOT/SEC30	Restoration Ecology	2	1 2	05 05	20 20	50	2 hrs.

Course Learning Outcomes (CLO)

1. Describe the ecological, economic and social factors that lead to ecosystem degradation
2. Evaluate and select appropriate ecological restoration techniques for different types of ecosystems
3. Design ecological restoration projects and identify appropriate methods to monitor and evaluate the restoration practices
4. Undertake collaborative programmes to understand and solve ecological restoration problems

Instructions for Paper-Setter

1. Nine questions will be set in all. All questions will carry equal marks.
2. Question No. 1, which will be short answer type covering the entire syllabus, will be compulsory. The remaining eight questions will be set unit wise selecting two questions from each Unit I to IV. The candidate will be required to attempt question No. 1 and four more questions selecting one question from each unit.

UNIT	TOPICS	CONTACT HOURS
I	**Fundamentals of Restoration Ecology:** Definition and history of restoration ecology, Principles of restoration ecology, Restoration process: planning, implementation, and monitoring; Ecosystem services and the importance of restoration ecology; Challenges and limitations of restoration ecology; Case studies in restoration ecology; Ethics and values in restoration ecology; Restoration ecology and environmental policy	8
II	**Ecological Foundations for Restoration Ecology:** Role of ecological concepts in restoration ecology: ecological succession. Biodiversity, ecological interactions, and habitat fragmentation and ecosystems; Climate change and its impact on restoration ecology, Invasive species and their role in ecosystem degradation and restoration, Ecological thresholds, and their relevance to restoration ecology	8
III	**Techniques and Tools for Restoration Ecology:** Ecological site assessment and inventory, Restoration planning and design, Techniques for soil and water conservation in restoration ecology, Seed collection, propagation, and planting techniques for restoration, Wildlife management in restoration ecology, Restoring aquatic ecosystems: techniques and challenges, Biomimicry and ecological engineering in restoration ecology. Evaluating and monitoring restoration outcomes	7
IV	**Ecosystem Restoration:** Restoration of: grasslands, forests, wetlands, agricultural and urban landscapes, mining and industrial sites; Restoration of ecosystem services in aquatic ecosystems	7
	Practical List: 1. Field visits to assess the magnitude of degradation in selected ecosystems 2. Analyse the success of ecosystem restoration case studies in Haryana and identify the underlying principles 3. Assess the current status of a degraded ecosystem and identify potential areas for restoration 4. Learn techniques for collecting and propagating native plant species for use in restoration projects 5. Design methods for reducing erosion and managing nutrient runoff in restored ecosystems 6. Examine techniques for planting and establishing native plant species in a restored ecosystem 7. Evaluate methods for assessing and managing wildlife habitat in a restored ecosystem. 8. Assess efficacy of different methods for monitoring and evaluating restoration outcomes in a restored ecosystem. 9. Learn techniques for managing invasive species in a restored ecosystem 13-14. Design and implement a restoration plan for selected degraded ecosystems (terrestrial and aquatic) to improve the quality of habitat	

Learning Resources

Clewell, A. F., & Aronson, J. (Eds.). (2013). Ecological restoration: Principles, values, and structure of an emerging profession (2nd ed.). Island Press.
Erickson, A. L., Ryan, C. M., & Jones, T. A. (Eds.). (2021). The science of ecological restoration: Creating resilience in a changing world. Island Press.
Hobbs, R. J., & Suding, K. N. (2018). New models for ecosystem dynamics and restoration. CRC Press.
Palmer, M. A. (2016). Restoration: The science of restoring ecosystems and the human spirit. Island Press.
Temperton, V. M., Hobbs, R. J., Nuttle, T., Halle, S., & Tonev, C. (Eds.). (2020). Novel ecosystems: Intervening in the new ecological world order. John Wiley & Sons.
Yaffee, S. L., & Wondolleck, J. M. (2019). Ecosystem management in the United States: An assessment of current experience. Routledge.

241/ENG/SE301

SEC- 2

Spoken English

Course Objectives

CO	Description
CO-1	Improve pronunciation to enhance clarity and understanding in spoken English.
CO-2	Enrich vocabulary to express ideas more precisely and articulate nuanced thoughts in conversations.
CO-3	Foster cultural competence in spoken English, including an understanding of idiomatic expressions, cultural nuances, and appropriate language use invarious contexts.

Course Outcomes

On completing the paper, **Spoken English** the students shall be able to realize following programme outcomes:

CO	Description
CO-1	Increased fluency in English Language.
CO-2	Increased confidence and stage daring.
CO-3	Develop personality and communication skills.

SEC-2

Nomenclature of the Course: Spoken English

Max. Marks: 50
Theory Internal: 05
Theory External: 20
Practical Internal: 05
Practical External: 20

Unit I

Pronunciation and Developing Vocabulary:

1. The basic sounds, Letter and sounds, Sound and sound groups, Words and utterances, Consonants and vowels, Word groups, stressed, unstressed, Intonation
2. Word formation: Affixation, Compounding, Blending, Acronyms
3. Word Games
4. Word Families: based on nouns, based on verbs and based on adjectives
5. Synonyms, hyponyms, antonyms
6. Homonyms, homographs, homophones
7. One word for many
8. Idioms and Proverbs
9. Phrasal Verbs
10. British and American English
11. Current words
12. Words often confused

Unit II

(a) **Greeting/Manners**

- Introducing someone/yourself
- Invitation
- Thanking
- Apologizing
- Complementing

- Asking and giving directions
- Telephone Conversation

(b) Role playing

i. At the post office
ii. At the Bank
iii. Helping friends
iv. Making inquiries about journey
v. Casual Meetings
vi. At social gatherings
vii. Friends talk about their ambitions
viii. The Importance of spoken English

(c) Group Discussion

(d) Mock Interview/Job Interviews

(e) Speeches

(f) Methodology:

1. Lectures
2. Group Discussion
3. Role playing
4. Audio Session

Instructions to the Paper-Setter and students:

- All questions are compulsory.
- Question 1will be short-answer type question covering all Units. The students are required to attempt any 3 out of 4. (3×2=06 marks)
- Question no. 2 will be an Essay type question based on Unit-I. The students have to attempt any 1 out of 2 questions. (07 marks)
- Question no. 3 will be an Essay type question based on Unit-I. The students have to attempt any 1 out of 2 questions. (07 marks)

Goel S.L., Health Care Administration and Planning

241/MPH/SE 301

6. Information Technology in Public Health

Course Objectives:

To introduce the fundamentals of information and communication technologies (ICT) in public health.

To understand the use of digital tools, data systems, and e-health applications for health surveillance, monitoring, and service delivery.

To build competencies in using health information systems, telemedicine, and GIS.

To promote ethical and secure handling of digital health data.

Unit i: Fundamentals of Health Information Technology

Overview of IT and ICT in health care

Types of health data: individual, aggregate, spatial

Electronic Health Records (EHRs) and Electronic Medical Records (EMRs)

Health data standards (HL7, ICD-10, SNOMED)

Cloud computing and mobile health (mHealth)

Unit II: Health Management Information Systems (HMIS)

Components and functions of HMIS

Data collection tools and software (e.g., DHIS2)

Data quality assurance, validation, and verification

Applications in planning, resource allocation, and decision-making

National Digital Health Mission (NDHM) and Ayushman Bharat Digital Mission (ABDM)

Unit III: Geographic Information Systems (GIS) and Telehealth

GIS: concepts, components, and uses in public health

Mapping health facilities, disease trends, and resource allocation

Basics of QGIS and ArcGIS

Telemedicine: definition, applications, and challenges

E-health and remote care: case studies and implementation models

Unit IV: Data Privacy, Security & Ethics in Public Health IT

Principles of health data confidentiality and integrity

Ethical issues in data sharing and digital surveillance

Legal frameworks: IT Act, HIPAA (overview), and Indian privacy laws

Cybersecurity risks in health information systems

Data governance in public health

Suggested Readings:

WHO. eHealth Tools and Services: Needs of Member States

Shortliffe EH, Cimino JJ. Biomedical Informatics

National Digital Health Blueprint (NDHB), Government of India

K. Park, Textbook of Preventive & Social Medicine (Chapter on Health Information)

Ramesh Bhatia, Health Informatics and IT in Public Health

2Yr/MPH/VA 301

7. Public Health Ethics and Laws

Course Objectives:

To develop an understanding of ethical principles and frameworks in public health practice and research.

To familiarize students with legal provisions and institutional mechanisms related to public health in India.

To examine real-world public health dilemmas through ethical reasoning.

To understand the role of rights, duties, and justice in public health laws and policies.

Unit I: Foundations of Public Health Ethics

241/GEO/SE301

Gurugram University, Gurugram, Haryana(India)

M.A. Geography (Semester-III) Syllabus (as per NEP 2020 w.e.f session 2024-25)

COMPUTER AIDED GEOGRAPHICAL GRAPHS AND DIAGRAMS

Paper Code: **SEC-02** (Practical Paper)
Course Id: **241/GEO/SE301**

Credit: 02 (0+0+4) L+T+P Hrs/Week	Total Marks	50
Time: 4 Hours	End Semester Practical Exam:	35 Marks
Note: **Practical Exam:** as the instructions mentioned under	Internal Assessment:	15 Marks
	Attendance	5
	Practical Assignment/Practical File	10

Course Outcomes:

CO-01: They will be able to understand the applicability of computer in Geographical study.

CO-02: Students will develop the ability to prepare, classify and organise data on computer.

CO-03: They will better understand the different types of data, visualize and analyse the statistical graphs and diagram properly through computer.

UNIT-I

Introduction to Computer: Introduction; Components of Computer: Hardware and Software, System software and application software, Input and Output devices; Microsoft office and Functioning of Ms Components; Significance of Computer in Geography; Statistical Diagrams and Computer; Research and Computer.

UNIT-II

Microsoft Excel: Spreadsheet- Row and Column, Cell Address; Data handling in Excel: Input, Organization and Tabulation, Ascending and Descending Arrangement, Auto Completion; Basic Functions and use of Basic Formulas in Ms Excel; Bar Graphs, Line Graphs, Pie Diagrams, Area and Scatter Diagrams in 2-D and 3-D;

Placement and Editing of Heading: Sub-Heading, Legend; Font Style, Size and Colour Change; Porting of Graphs and Diagrams in Ms Word, Paint or any other Software; Printing of Graphs and Diagrams.

Note: The question paper would be set from the syllabus covering the full content. The question paper for the written examination (4 hours duration) shall be made by the external examiner in assistance with the internal examiner. The answer books would be evaluated by the external examiner on the day of examination. The question paper in this course will be divided into two parts.

Part-I will consist of Five (5) short answer type questions carrying one (1) mark each.

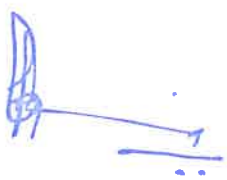
Part-II will consist of eight (8) Choice based descriptive questions/exercises from both units and carrying Five (5) marks each by selecting equal questions from each unit. Students will have to answer the four questions/exercises by selecting one from each unit on mandatory basis.

Distribution of Marks: In Practical Paper, the marks would be divided as follows:

		Type	Marks and no. of questions	Marks	Total Marks
(1). PE	**Written Examination**	Part-I Part-II	1 Marks of 5 questions 5 marks of 4 questions	**5** **20**	**35**
	Viva-Voce			**10**	
(2). PI	**Internal Assessment**	File Record		**10**	**15**
		Attendance		**5**	
				Total Marks =	**50**

Books Recommended:

- Abbott, Martin Lee (2014). *Understanding Educational Statistics using Microsoft Excel and SPSS.* New Jersey: John Wiley & Sons.
- Gupta, S.P. (2021). *Statistical Methods*. New Delhi: Sultan Chand and Sons.
- Jain, Riyanka (2018). *Statistical Analysis in Microsoft Excel*. New Delhi: Universal Academic Books Publishers & distributers.
- Jelen, B. (2010). *Charts and Graphs: Microsoft Excel 2010*. Boston: Que Publishing.
- Lalwani, L. (2019). *Excel 2019 All-in-one: Master the new features of Excel 2019/ office 365*. New Delhi: BPB Publications.
- Mahmood, A. (1993). *Statistical Methods in Geographical Studies*. New Delhi: Rajesh Publications.
- Monkhouse, F.J. and Wilkinson, H.R. (1971). *Maps and Diagrams*. London: Methuen.
- Mishra, R.N. and Sharma, P.K. (2020). Prayogik Bhoogol, (Hindi). Jaipur: Rawat Publications.
- Singh, M. Et. al. (2021). *Excel in Geography*. Durban: Tess Publishing.
- Sharma, J. P. (2020). *Prayogtmak Bhugol ki Rooprekha* (Hindi), Meerut: Rastogi Publications.



241/MPS/SE301

Semester III
SEC -2 Team Building and Leadership Skills

Course ID	**SEC- 2 Team Building and Leadership Skills**
Semester III	**Maximum Marks: 50**
Credits- 02	**Theory Marks: 35**
Examination Time: 2 Hrs.	**Theory Internal Assessment: 15**

Course Objective -

- Define key concepts related to team building and leadership.
- Explain the significance of various leadership theories and team dynamics.
- Demonstrate effective team-building strategies and leadership styles in practical scenarios.
- Assess the effectiveness of different leadership styles in political contexts.

• Five Questions will be set in all and students will be required to attempt 3 questions.

• Question No. 1 will be compulsory and will consist of 5 short answer type questions of 3 marks spread over the entire syllabus (3x5=15 marks).

• For the remaining four questions, students will attempt 1 out of 2 questions from each of the two units (10 marks each).

Unit I Team Building

- **Concept of Team**: Definition and Significance of Team
- **Types of Team**: Formal, Informal, Cross-Functional, Self-Managed,
- **Team Development**: Forming, Storming, Norming, Performing, Adjourning
- Team Building,
- Team Effectiveness

Unit II Leadership Skills

- **Concept of Leadership**: Definition and Importance of Leadership
- **Theories of Leadership**: Trait Theory, Behavioural Theory, Situational Theory,
- **Leadership Styles**: Autocratic Style, Democratic Style, Laissez-Faire Style,
- Leadership Effectiveness
- Qualities of an Effective Leader

Suggested Readings:

1. Aswathappa, K. (2013). *Organizational behavior* (10th ed.). Tata McGraw-Hill.
2. Bass, B. M. (2008). *Bass and Stogdill's handbook of leadership: Theory, research, and managerial applications* (5th ed.). Free Press.
3. Bennis, W. (2009). *On becoming a leader*. Basic Books.
4. Goleman, D. (1998). *Working with emotional intelligence*. Bantam.
5. Hughes, R. L., Ginnett, R. C., & Curphy, G. J. (2019). *Leadership: Enhancing the lessons of experience* (9th ed.). McGraw-Hill Education.
6. Lencioni, P. (2002). *The five dysfunctions of a team: A leadership fable*. Jossey-Bass.
7. Northouse, P. G. (2018). *Leadership: Theory and practice* (8th ed.). Sage Publications.
8. Rao, C. B. (2021). *Leadership for India Inc: Practical concepts and constructs* [NPTEL course]. Indian Institute of Technology Madras. Retrieved from https://archive.nptel.ac.in/courses/110/106/110106151/
9. Rangnekar, S. (2024). *Leadership and team effectiveness* [NPTEL course]. Indian Institute of Technology Roorkee. Retrieved from https://onlinecourses.nptel.ac.in/noc25_mg38/preview
10. Yuki, G. A. (2010). *Leadership in organizations* (8th ed.). Pearson

241/PPAG/SE/301

Semester 3

SEC-2: Applied Political Science

Course ID:	**Applied Political Science**
Semester III	**Maximum Marks: 50**
Credits: 2 (Hrs./week:2)	**Theory Examination: 35**
Time: 2 hours	**Internal Assessment: 15**

Course Outcome:

Creative: Students will develop research questions, hypotheses, and conduct literature reviews for academic papers.

Apply: Students will apply proper referencing and writing techniques for book reviews.

Apply: Students will conduct field research using surveys, sampling, and interviews, while maintaining ethical standards.

Evaluate: Students will ensure research integrity by addressing ethics and plagiarism.

Note for External Examiner:

1. **Five Questions will be set in all and students will be required to attempt 3 questions.**
2. **Question No. 1 will be compulsory and will consist of 5 short answer type questions of 3 marks spread over the entire syllabus (3x5=15 marks).**
3. **For the remaining four questions, students will attempt 1 out of 2 questions from each of the two units (10 marks each).**

Unit I:

How to Write a Paper: Central Question, Secondary Questions, Hypothesis, Literature Review, Book

Review and Referencing

Unit II:

Field Research: Survey, Sampling and Interview, Ethics and Plagiarism.

Suggested Readings:

1. George, A. L., & Bennett, A. (2005). *Case Studies and Theory Development in the Social Sciences*. MIT Press.
2. Halperin, S., & Heath, O. (2012). *Political Research: Methods and Practical Skills*. Oxford University Press.
3. King, G., Keohane, R. O., & Verba, S. (1994). *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton University Press.
4. Lowndes, V., Marsh, D., & Stoker, G. (Eds.). (2018). *Theory and Methods in Political Science* (4th ed.). Palgrave.
5. Neuman, W. L. (1994). *Social Research Methods: Qualitative and Quantitative Approaches*. Pearsons.
6. Schatz, E. (Ed.). (2009). *Political Ethnography: What Immersion Contributes to the Study of Power*. University of Chicago Press.
7. Srivastava, V. K. (Ed.). (2005). *Methodology and Field Work: Oxford in India Readings*. Oxford University Press.

241/CHE/SE301

Course Code SEC-02			Course Title Medicinal Chemistry				Course ID				
L	T	P	L	T	P	Total Credits	MARKS				
(Hrs)			Credits				TI	TE	PI	PE	Total
2			2			2	15	35	-	-	50

Examination Duration:	**Theory**: 2 Hrs
Course Objectives	• To understand drug discovery, SAR, lead optimization, and basic pharmacokinetic-pharmacodynamic principles. • To study the synthesis, action, and uses of antineoplastic and antimalarial drugs. • To learn the chemistry and therapeutic roles of analgesics, antipyretics, and anti-inflammatory agents. • 4. To explore the synthesis and medicinal use of cardiovascular and anti-HIV drugs.
Course Outcomes:	After the completion of this course, student will be able to: • Explain the principles of drug design, SAR, and the role of lead compounds in drug development. • Describe the synthesis and mechanisms of action of selected antineoplastic and antimalarial drugs. • Analyze the structure, synthesis, and therapeutic applications of common analgesics and anti-inflammatory drugs. • Discuss the chemistry and mode of action of cardiovascular and anti-HIV agents.

COURSE SYLLABUS

Note: 1. Question no. 1 is compulsory, which contains short answer type questions and to be set from the entire syllabus.

2. Eight questions will be set, two from each of the units I, II, III & IV. The candidates are required to attempt four questions in all selecting at least one question from each section. All questions shall carry equal marks.

3. The question paper must be set in consonance with course outcomes.

Unit No.	Contents	Contact Hrs
I	**Drug Design** Classification and discovery of new drugs, drug development: screening of natural products, isolation and purification, structure determination, structure-activity relationships (SAR), synthetic analogues, isosteres and bioisosteres, concept of lead compounds, therapeutic index, LD50 and ED50. Elementary idea about drug action: the receptor role, neurotransmitters and receptors, ion channels and their control.	8

	Membrane bound enzymes-activation/deactivation. Brief overview of pharmacokinetics, pharmacodynamics and prodrugs.	
II	**Medicinal Chemistry of Specific Drug Categories-I** **Antineoplastic Agents:** Synthesis, general mode of action and medicinal uses of Mechlorethamine, Chlorambucil, cyclophosphamide, carmustine, aminopterin, 6-mercaptopurine. **Antimalarials**: Synthesis, general mode of action and medicinal uses of Chloroquine, primaquine, chloroguanide, pyrimethamine.	**8**
III	**Medicinal Chemistry of Specific Drug Categories-II** **Analgesics, Antipyrics and Antiinflammatory agents**: Synthesis, general mode of action and medicinal uses of Morphine and related compounds (codeine and heroin), meperidine, methadone, aspirin, acetaminophen, phenylbutazone, mefenamic acid, ibuprofen, diclofenac, naproxen, celecoxib.	7
IV	**Medicinal Chemistry of Specific Drug Categories-III** **Cardiovascular Drugs:** Synthesis, general mode of action and medicinal uses of Calcium channel blockers and β-blockers: sorbitrate, diltiazem, atenolol and verapamil. **AIDS and drugs against HIV**: HIV infection to the system, structure and mode of action of important drugs against HIV (nucleoside reverse transcriptase inhibitors) - AZT, ddI, ddC, d4T and 3TC (synthesis only of AZT).	7
Suggested Books	**1.** Wilson and Gisvold's Text book of Organic Medicinal and Pharmaceutical Chemistry, Ed. Robert F. Dorge. **2.** Burger's Medicinal Chemistry and Drug Discovery Vol-I Ed. M.E. Wolf, John Wiley. **3.** Goodman and Gilman's Pharmacological Basis of Therapeutics, McGraw-Hill. **4.** Organic Chemistry Vol.-2 I. L. Finar, ELBS.	
	Assessment and Evaluation	
Theory	Internal Assessment: 15 Marks	• Class Participation: 05 Marks • Seminar/Presentation/ Assignment: 05 Marks • Mid Term Exam: 05 Marks
	External Assessment: 35 Marks (02 Hours)	• End Term Exam: 35 Marks

241/AE/SE301

241/AE/SE301	Data Analysis with Statistical Softwares- II	L	T	P	C
		0	0	2	2

Max. Marks: 50 **Practical Exam: 35**

Credits: 2 **Practical/ Internal Assessment: 15**

Note For the paper Setter

1. Nine Questions will be set in all and students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2*7=14 marks).
3. For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (14 marks each).

Course objective

The objective of the paper is to make students familiar with theory and application of statistical methods. This course covers the statistical foundations of data analysis including the statistical theory and its applications in Economics through R.

Course Outcomes

CO1: To get knowledge about R studio installation and R programming fundamental concepts like variable, data types, commands.

CO2: To design various experiments based on graphs and charts for data visualization in R programming.

CO3: To apply of statistical computations for data analytics. Understand the use of R in data analysis.

Module I- Introduction to R: Overview of R programming, Features of R, Applications of R, Introduction and Installation of R Studio, Creation and Execution of R File in R Studio, Clear the Console and the Environment in R Studio , Basic Syntax in R Programming , R Commands, Variables and scope of variables, Data Types, Operators,Keywords.

Module II- Descriptive statistics in R- Bar Charts, Line Graphs, Scatterplots, Pie Charts, Boxplots, Histograms Mean, Median and Mode, Variance and Standard Deviation, Descriptive Analysis, Normal Distribution, Binomial Distribution, Analysis of Variance (ANOVA) Test : One Way & Two Way ANOVA, Regression: Linear and Multiple Linear Regression, Logistic Regression. Time Series Analysis, Survival Analysis.

Chairperson

251/HS/SE301

SEC

Semester-III

Course Code		Credit	Structure			
			L	T	P	TOTAL CREDIT UNITS
	Basic Skills for Research Paper and Dissertation (SEC)	2	1	0	1	2

Course Description:

This course aims to equip postgraduate students with the fundamental academic and methodological skills required for scholarly writing and research in the field of Humanities and Indian Knowledge Systems. The focus will be on understanding the components of a research paper, thesis writing, referencing styles, critical review, and ethical standards of academic writing. The course will train students in identifying a research problem, conducting literature review, developing arguments, citation practices, and preparing for viva-voce and academic presentation.

Course Objectives:

- To introduce students to the basics of academic research methodology and writing.
- To develop skills in constructing a research question or hypothesis.
- To train students in referencing styles, citation practices, and plagiarism avoidance.
- To enable students to prepare well-structured research papers and dissertations.
- To familiarize students with peer-reviewed journals, indexing, and publication ethics.

Unit 1: Introduction to Research and Methodology

- Nature and scope of research in Humanities and Indian Knowledge Systems

- Types of research: descriptive, analytical, historical, interdisciplinary
- Choosing a research topic: feasibility, relevance, originality
- Research questions, hypothesis, and objectives
- Qualitative and quantitative approaches

Unit 2: Structuring a Research Paper or Dissertation

- Components of a research paper: abstract, introduction, literature review, methodology, analysis, conclusion
- Dissertation structure: chapters, headings, flow of content
- Argumentation and logical flow
- Formatting and writing styles (APA, MLA, Chicago, IKS referencing)
- Footnotes, endnotes, tables, charts

Unit 3: Literature Review and Academic Sources

- Identifying and reviewing scholarly sources
- Primary and secondary sources in Sanskrit and Indian traditions
- Annotated bibliography
- Use of libraries, databases (JSTOR, Shodhganga, Indiastat)
- Note-making and source evaluation

Unit 4: Research Ethics, Plagiarism, and Presentation

- Academic integrity and ethics in research
- Plagiarism: detection tools and avoidance
- Copyright, fair use, and citation
- Writing for publication: journals, conferences, book chapters
- Oral presentation skills: paper presentation, thesis defense, PPT structuring

Suggested Readings / Reference Texts:

1. **Kothari, C.R.** – *Research Methodology: Methods and Techniques*

2. **R.P. Bhatnagar & R. Bhargava** – *Research Methodology in Humanities*
3. **Jayant Parikh** – *Shodh Pravidhi* (for Sanskrit-based research methods)
4. **UGC Guidelines for Plagiarism and Research Ethics**
5. **डॉ. संजय अग्रवाल** –**"शोध पद्धति: शिक्षाशास्त्र, समाजशास्त्र एवं मानविकी के लिए"** प्रकाशक: साहित्य भवन पब्लिकेशन्स
6. **डॉ. जयंत पारीक** –**"शोध प्रविधि"** प्रकाशक: विद्यार्थी ग्रंथमाला, राजस्थान
7. **डॉ. रमेश चन्द्र** –**"शोध प्रविधि एवं रिपोर्ट लेखन"** प्रकाशक: अग्रवाल पब्लिशिंग हाउस
8. **डॉ. अर्चना शर्मा** –**"मानविकी एवं सामाजिक विज्ञान में शोध पद्धति"** विषयवस्तु: साहित्य, इतिहास, दर्शन, समाजशास्त्र जैसे विषयों में शोध की बुनियादी समझ।

Course Outcomes:

Upon completion of this course, students will be able to:

- Formulate research questions and plan a dissertation structure effectively.
- Identify, evaluate, and organize relevant literature for their topic.
- Write clear, coherent, and structured academic content in thesis or article format.
- Apply correct citation and referencing practices while avoiding plagiarism.
- Confidently present their work in academic forums and prepare for publication.

Instructions to External Examiner:

This question paper will be divided into two sections. Examiner is requested to set Section A as compulsory questions from the entire syllabus (it may be objective or subjective). Section B will have an option to choose from two questions from each unit. Students will have to answer one question from each unit.

251|SKT|SE301

SEC

Semester-III

Course Code		Credit	Structure			
			L	T	P	TOTAL CREDIT UNITS
	Basic Skills for Research Paper and Dissertation (SEC)	2	1	0	1	2

Course Description:

This course aims to equip postgraduate students with the fundamental academic and methodological skills required for scholarly writing and research in the field of Humanities and Indian Knowledge Systems. The focus will be on understanding the components of a research paper, thesis writing, referencing styles, critical review, and ethical standards of academic writing. The course will train students in identifying a research problem, conducting literature review, developing arguments, citation practices, and preparing for viva-voce and academic presentation.

Course Objectives:

- To introduce students to the basics of academic research methodology and writing.
- To develop skills in constructing a research question or hypothesis.
- To train students in referencing styles, citation practices, and plagiarism avoidance.
- To enable students to prepare well-structured research papers and dissertations.
- To familiarize students with peer-reviewed journals, indexing, and publication ethics.

Unit 1: Introduction to Research and Methodology

- Nature and scope of research in Humanities and Indian Knowledge Systems

- Types of research: descriptive, analytical, historical, interdisciplinary
- Choosing a research topic: feasibility, relevance, originality
- Research questions, hypothesis, and objectives
- Qualitative and quantitative approaches

Unit 2: Structuring a Research Paper or Dissertation

- Components of a research paper: abstract, introduction, literature review, methodology, analysis, conclusion
- Dissertation structure: chapters, headings, flow of content
- Argumentation and logical flow
- Formatting and writing styles (APA, MLA, Chicago, IKS referencing)
- Footnotes, endnotes, tables, charts

Unit 3: Literature Review and Academic Sources

- Identifying and reviewing scholarly sources
- Primary and secondary sources in Sanskrit and Indian traditions
- Annotated bibliography
- Use of libraries, databases (JSTOR, Shodhganga, Indiastat)
- Note-making and source evaluation

Unit 4: Research Ethics, Plagiarism, and Presentation

- Academic integrity and ethics in research
- Plagiarism: detection tools and avoidance
- Copyright, fair use, and citation
- Writing for publication: journals, conferences, book chapters
- Oral presentation skills: paper presentation, thesis defense, PPT structuring

Suggested Readings / Reference Texts:

1. Kothari, C.R. – *Research Methodology: Methods and Techniques*

2. **R.P. Bhatnagar & R. Bhargava** – *Research Methodology in Humanities*
3. **Jayant Parikh** – *Shodh Pravidhi* (for Sanskrit-based research methods)
4. **UGC Guidelines for Plagiarism and Research Ethics**
5. **डॉ. संजय अग्रवाल** –**"शोध पद्धति: शिक्षाशास्त्र, समाजशास्त्र एवं मानविकी के लिए"** प्रकाशक: साहित्य भवन पब्लिकेशन्स
6. **डॉ. जयंत पारीक** –**"शोध प्रविधि"** प्रकाशक: विद्यार्थी ग्रंथमाला, राजस्थान
7. **डॉ. रमेश चन्द्र** –**"शोध प्रविधि एवं रिपोर्ट लेखन"** प्रकाशक: अग्रवाल पब्लिशिंग हाउस
8. **डॉ. अर्चना शर्मा** –**"मानविकी एवं सामाजिक विज्ञान में शोध पद्धति"** विषयवस्तु: साहित्य, इतिहास, दर्शन, समाजशास्त्र जैसे विषयों में शोध की बुनियादी समझ।

Course Outcomes:

Upon completion of this course, students will be able to:

- Formulate research questions and plan a dissertation structure effectively.
- Identify, evaluate, and organize relevant literature for their topic.
- Write clear, coherent, and structured academic content in thesis or article format.
- Apply correct citation and referencing practices while avoiding plagiarism.
- Confidently present their work in academic forums and prepare for publication.

Instructions to External Examiner:

This question paper will be divided into two sections. Examiner is requested to set Section A as compulsory questions from the entire syllabus (it may be objective or subjective). Section B will have an option to choose from two questions from each unit. Students will have to answer one question from each unit.

241/HIN/SE301

21

एम.ए. हिंदी
सेमेस्टर तृतीय

SEC-02 मौखिक भाषायी दक्षता

पूर्णांक- 35+15=50

पाठ्यक्रम के उद्देश्य:

भाषा की समझ विकसित करना: छात्रों में राजभाषा की गहन समझ विकसित करना ताकि वे सरकारी और प्रशासनिक कार्यों में इसका प्रभावी उपयोग कर सकें।

भाषायीदक्षता: विद्यार्थियों को राजभाषा में लिखने, पढ़ने, बोलने और सुनने की दक्षता प्रदान करना।

सांस्कृतिक जागरूकता: राजभाषा के माध्यम से सांस्कृतिक धरोहर और परंपराओं के प्रति जागरूकता बढ़ाना।

पाठ्यक्रम के परिणाम :

भाषा के शुद्ध उच्चारण, सामान्य लेखन, रचनात्मक लेखन और तकनीकी शब्दों से अवगत हो सकेंगे।

पाठ्यक्रम :

इकाई -1 भाषायी दक्षता के आयाम

भाषायी दक्षता से तात्पर्य

भाषायी दक्षता का महत्त्व

श्रवण और वाचन

पठन और लेखन

इकाई-2 : भाषायी दक्षता के कारक तत्त्व

भाषा-व्यवहार (भाषिक प्रयोग और शैली)

शब्द-सामर्थ्य - सामान्य एवं तकनीकी शब्द

सुनना और बोलाना- प्रभावी श्रवण के आयाम, शुद्ध उच्चारण, भाषण, एकालाप, वार्तालाप

पढ़ना और लिखना- स्वाध्याय और उद्देश्य-केन्द्रित पठन, सामान्य लेखन और रचनात्मक लेखन

ईकाई-3 : भाषायी दक्षता का व्यावहारिक पक्ष

किसी एक विषय पर- भाषण, समूह चर्चा, वार्तालाप या टिप्पणी

किसी एक विषय का भाव-विस्तार या पल्लवन

द्रुतवाचन- किसी साहित्यिक कृति पर आधारित

निर्देश-1.**पाठ्यक्रम में निर्धारित** प्रत्येक खंड में कम से कम एक दीर्घ प्रश्न अवश्य पूछा जाएगा। पूछे गए प्रश्नों की संख्या चार होगी, **जिसमें से परीक्षार्थी को कुल दो प्रश्न** करने होंगे। प्रत्येक प्रश्न के लिए 8 अंक निर्धारित है। पूरा प्रश्न कुल 16 अंकों का होगा।

2.**पूरे पाठ्यक्रम में से कुल छः लघुत्तरी प्रश्न** पूछें जाएंगे, जिनमे से परीक्षार्थी को 150 शब्दों में किन्हीं चार प्रश्नों का उत्तर देना **होगा। प्रत्येक प्रश्न तीन अंक का होगा।** पूरा प्रश्न 12 अंकों का होगा।

3.**पूरे पाठ्यक्रम में 7 से वस्तुनिष्ठ** अनिवार्य प्रश्न पूछे जाएंगे। प्रत्येक प्रश्न एक-एक अंक का होगा।

सहायक ग्रंथ-

कंप्यूटर एसिसटेड लैंग्वेज लर्निंग, मीडिया डिजाइन एंड एप्लीकेशंस- कीथ कैमेरॉन

भाषा शिक्षण- रवींद्रनाथ श्रीवास्तव

सृजनात्मक साहित्य- रवींन्द्रनाथ श्रीवास्तव

Rajat Mukesh

241/MUS/SE301

MA Music
SEMESTER - 3

Name of Subject: **Tabla Practical Aptitude**	Maximum Practical Marks: 50 (15+35)
Subject Code: 241/MUS/SE301	

Course Objectives:
1. To know about the basic knowledge of Tabla.
2. To know about the Talas with notation system.

Course Outcomes:
On successful completion of this course, the students will be able to
1. Students will get basic knowledge of Tabla.
2. Students will learn different Taalas.

UNIT- 1

1. Play following Talas of light music on Tabla:- Keharva, Khemta, Rupak, Deepchandi
2. Play following Talas of Classical music on Tabla:-Teentaal, Tilwada, Drut Ektaal, Vilambit Ektaal, Chautaal

UNIT- 2

1. Play Teentaal and Ektaal on Tabla with Nagma.
2. Ability to play Vernas on Tabla
3. Laggi in Keharva taal.

Suggested Readings: -

1. **Taal Parichay Bhaag**- 1, Girish Chandra Srivastava, Ruby Publications, Allahabad.
2. **Taal Parichay Bhaag**- 2, Girish Chandra Srivastava, Ruby Publications, Allahabad.
3. **Taal Parichay Bhaag**- 3, Girish Chandra Srivastava, Ruby Publications, Allahabad.

4.

241/MUS/SE302

SEMESTER - 3

Name of Subject: Harmonium **Practical Aptitude - 2**	Maximum Practical Marks: 50 (15+35)
Subject Code: 241/MUS/SE302	

Course Objectives

1. To know about the basic knowledge of Music.
2. To know about the Basic knowledge of Harmonium.

Course Outcomes

On successful completion of this course, the students will be able to

1. Students will get basic knowledge of Indian Music.
2. Students will learn the basic knowledge of Harmonium.

Unit – 1

1. Play 5 Alankar in any of the following raags : Malkauns, Bhairav and Bhimpalasi.
2. Compositions in the above mentioned raagas.

Unit – 2

1. Light Composition based on the above mentioned raags
2. National Song. National Anthem and a Saraswati Vandana

Suggested Readings: -

1. Harmonium: Vividh Aayam: Dr. Vinay Kumar Mishra :- Akanksha Publication, New Delhi, 1stEditon: 2015
2. Samvadini – Jayant Bhalodkar :- Kanishka Publication, New Delhi, Ist Edition: 2006
3. Abhinav Geetanjali Part 5th: Pandit Ramashreya Jha, Sangeet Sadan Prakashan, Allahabad.

PRACTICAL PAPER

COURSE OBJECTIVES

1. To acquire the fluency of throat through the Alankars and the skills of presentation of classical music
2. To gain the knowledge of the prescribed raagas.
3. To gain the ability of presenting taals on hands.

COURSE OUTCOMES

On successful completion of this course, the students will be able to:

1. Sing with fluency and know about mentioned raags
2. Know the detailed study of the prescribed raagas
3. know the mentioned taals

Contents

- Vilambit and Drut Khayals in the prescribed raags
- Sing 5 alankars in the prescribed raagas
- Description of the prescribed Taalas with Layakari.

SUGGESTED READINGS

1. Harish Chander Srivastava : *Raag Parichaya , Part I, II & III*
2. Madhur Sawaralipi Sangrah : Harish Chander Shrivastava Part- I,II,III,IV
3. Bhatkhande Sangeet Shastra- V. N. Bhatkhande
4. Sangeet Visharad- Basant
5. Kramik Pustak Mallika- Part II V. N. Bhatkhande
6. Raag Vigyan – V. N. Patwardhan
7. Bhartiya Sangeet Vadya-- Pt. Lal Mani Mishra

241/MSW/SE301

Master of Social Work
Semester - II
Development Communication

SEC-02
Credits: 2 (Hrs./Week: 2)
Maximum Marks: 50
Theory Examination: 35
Internal Assessment: 15
Course Outcomes:

- Describe key theories and concepts in development communication.
- Apply communication strategies to address development challenges.
- Design and implement development communication interventions.

Unit-I
Introduction to Development Communication

- Development: Key Concepts and Theories
- Mass Media: Print Media, Audio – Visual Media, Electronic Media
- Role of Media in Development

Unit-II

Skills in Development Communication-I

- Group Media
- Folk Media

Unit-III
Skills in Development Communication-II

- Media Advocacy Campaign: Strategies, Planning and Challenges
- Case studies of successful media advocacy campaigns

Unit-IV
Social Marketing, Public Opinion and Public Relations

- Principles of Social Marketing for the Development Sector
- Designing and evaluating social marketing campaign

Suggested Readings:

Tufte, T., Wilkins, K. G., & Obregon, R. (Eds.) (2014). The Handbook of Development Communication and Social Change. Wiley-Blackwell. Global Handbooks in Media and Communication Research.

Carragee, K. M. (2024). *Communication activism research for social justice: Engaged research, collective action, and political change* (1st ed.). Routledge.

Singh, J. P. (2019). Development Communication in India: State, Society, and Market. Routledge.

Srivastava, K. (2016). Development Communication in India: A Study of Media Strategies and Campaigns. Oxford University Press.

Mishra, A. (Ed.). (2017). Communication for Development and Social Change: New Millennium Challenges and Opportunities. Concept Publishing Company.

Sahay, R. K., & Malla, D. S. (Eds.). (2019). Development Communication in India: Perspectives and Practices. SAGE Publications.

Manchanda, R., & Jha, A. K. (Eds.). (2014). Development Communication in India: A New Paradigm. Aakar Books.

Reddy, B. N. (2018). Development Communication in India. APH Publishing Corporation.