## Table No. UG 08: Pool of Skill Enhancement Courses (SEC)

Semester 1

| Sr No. | Nomenclature of Course | Run by Department | Page No. |
|---|---|---|---|
| 1) | Yoga Meditation | Art and Culture/Yoga | * |
| 2) | The Art of Instrument Playing | Art and Culture/Music | * |
| 3) | Types of Instruments | Art and Culture/Music | * |
| 4) | Diary Processing | Biotechnology | 1 |
| 5) | Plant Hybridisation | Botany | * |
| 6) | Chemistry lab operation and safety measures | Chemistry | 3 |
| 7) | Python Programming | Computer Science | 6 |
| 8) | Basic IT Tools | Computer Science | * |
| 9) | Introductory Course in R | Computer Science | 8 |
| 10) | Computer Programming in C | Computer Science | 10 |
| 11) | Advance Spreadsheet Tool | Computer Science | * |
| 12) | Office and Spreadsheet Tools Learning | Computer Science | 13 |
| 13) | Entrepreneurial Skills | Department of Commerce | * |
| 14) | Computerized Accounting System | Department of Commerce | 16 |
| 15) | Business Communication Skills | Department of Management | * |
| 16) | Managerial Skill Development | Department of Management | * |
| 17) | Food Safety & HAACP | Department of Management (Culinary Arts) | 18 |
| 18) | Hospitality Discovery Experience | Department of Management (Hospitality Management) | 20 |
| 19) | Application of Computer in Tourism | Department of Management (Tourism and Travel) | 22 |
| 20) | Data type and Sources | Economics | 24 |
| 21) | Color & Light | Engineering and Tech. (Design) (UTD) | * |
| 22) | Writing Process | English | * |
| 23) | Surveying Method In Geography | Geography | 26 |
| 24) | Radio Lekhan | Hindi | * |
| 25) | Monumental Studies-1 | History | 28 |
| 26) | | | * |
| 27) | Food preservation | Home Science | 30 |
| 28) | Calculation Skills with vedic Mathematics | Mathematics | 31 |
| 29) | Photoshop | Media Studies | * |
| 30) | Basic of Typography | Media Studies (Animation) (UTD | 100 |
| 31) | Tabla & Light Music Vocal | Music (Vocal) | * |
| 32) | Yoga and Sports for Carrer | Physical Education | * |
| 33) | Basics of Instruments Skills | Physics | 34 |

| | | | |
|---|---|---|---|
| 34) | Life Skill-1 | Psychology | 37 |
| 35) | Elementary Knowledge of Jyotish | Sanskrit | * |
| 36) | Basics of Social Research | Sociology | 38 |
| 37) | Wellness & Lifestyle | Sports Science | * |
| 38) | Sahafat | Urdu | * |
| 39) | Bird Watching Techniques | Zoology | 40 |
| 40) | Housekeeping Operations-I | Dept. of Management (Hospitality & Hotel Administration) | 41 |
| 41) | Housekeeping operations-I | Department of Management (B.Sc. Hospitality Management ) | 44 |
| 42) | Introduction to HACCP | Department of Management ( B.A International Culinary Arts ) | 47 |
| 43) | Your Laws, Your Right | Political Science | 50 |

* Detailed Syllabus will be provided in due course of time

## Table UG09: Pool of Skill Enhancement Courses (SEC)

### SEMESTER 2

| Sr.No. | Nomenclature of Course | Run by Department | Page No. |
|---|---|---|---|
| 1. | Sound Recording | Art and Culture | * |
| 2. | Yoga for Sports Performance | Art and Culture | * |
| 3. | Cell Culture Techniques | Biotechnology | 52 |
| 4. | Vertical Farming | Botany | * |
| 5. | Analytical Chemistry | Chemistry | * |
| 6. | Cloud Computing Skills | Computer Science | * |
| 7. | Business Analytics | Computer Science | 55 |
| 8. | Advance IT Skills | Computer Science | * |
| 9. | Basic Statistical Tools | Computer Science | * |
| 10. | Data Management | Computer Science | 57 |
| 11. | Negotiation skills | Department of Commerce | 59 |
| 12. | E-Banking | Department of Commerce | 61 |
| 13. | Presentation Skill and Personality Development | Department of Management | * |
| 14. | Social Media Marketing | Department of Management | * |
| 15. | Introduction to Artificial Intelligence | Department of Management (Culinary Arts) | 63 |
| 16. | Opera Property Management System | Department of Management (Hospitality Management) | 65 |
| 17. | Business Communications in Tourism | Department of Management (Tourism and Travel) | 68 |
| 18. | Sound Editing | Music | * |
| 19. | Computer Application in Economic Analysis | Economics | 69 |
| 20. | User Study & Experience | Eng. & Tech (B. Design in Interior Design) (UTD) | * |
| 21. | User Study & Experience | Eng. & Tech (B. Design in Interior Design) (UTD) | * |
| 22. | Linguistics | English | * |
| 23. | Geographical data collection Techniques | Geography | 71 |
| 24. | Hindi Bhasha aur Vigyapan | Hindi | * |
| 25. | Monumental Studies -2 | History | 74 |
| 26. | History of Science and Technology in India | History | * |
| 27. | Techniques of resist dying and printing | Home Science | 76 |
| 28. | Numerical Ability Enhancement Skills | Mathematics | 78 |

| | | | |
|---|---|---|---|
| 29. | Illustrator | Media Studies | * |
| 30. | Application of Photoshop | Media Studies (Animation) (UTD) | 102 |
| 31. | Harmonium & Guitar | Music (Instrumental) | * |
| 32. | Harmonium & Guitar | Music (Vocal) | * |
| 33. | Sports Management | Physical Education | * |
| 34. | Basics of Programming | Physics | 82 |
| 35. | Basics of Computer | Political Science | * |
| 36. | Life Skill-2 | Psychology | * |
| 37. | Elementary Knowledge of Karamkand | Sanskrit | * |
| 38. | Computer application in data analysis | Sociology | 85 |
| 39. | Sports Industry & Marketing | Sports Science | * |
| 40. | Zaraye Iblaagh | Urdu | * |
| 41. | Taxidermy | Zoology | 87 |
| 42. | Housekeeping Operations-II | Dept. of Management (Hospitality & Hotel Administration) | 89 |
| 43. | Housekeeping operations-II | Department of Management ( B.Sc. Hospitality Management ) | 92 |
| 44. | Slow Food & Gastronomic | Department of Management ( B.A International Culinary Arts ) | 95 |
| 45. | Gender and Law in India : Theory & Practice | Political Science | 98 |
| 46. | Life Skill-2 | Psychology | 104 |

* Detailed Syllabus will be provided in due course of time

# Skill Enhancement Courses

| Part A - Introduction | | | |
|---|---|---|---|
| **Semester** | **I** | | |
| **Name of the Course ID: 240/BIOT/SEC101** | **DAIRY PROCESSING** | | |
| **Course Learning Outcomes (CLO):**<br>After completing this course, the learner will be able to:<br>1. The student will gain skills in dairy product development and hands-on training for the processing of different milk products.<br>2. The student can establish a start up based on their learnings in the subject.<br>3. The student can start provide 3rd party manufacturing to premiere dairy-based industries.<br>4. After completing this SEC, the student can work in any dairy based industry. | | | |
| | **Theory** | **Practical** | **Total** |
| | 1 | 2 | 3 |
| **Contact Hours** | 1 | 4 | 5 |
| **Max. Marks:75**<br>**(20TE+ 05TI + 15 PI + 35PE)** | **Time: 1h (Theory), 4h (Practical)** | | |

## Part B- Contents of the Course

**Instructions for Paper-Setter**

Six questions will be set in all. Question No.1 comprising objective/short answer type questions from the entire syllabus, will be compulsory. The remaining five questions will be set taking one questions from each section. The candidates will be required to attempt Q.No.1 &three others selecting one questions from each section. All questions carry equal marks.

| **UNIT I** | **CONTACT HOURS** |
|---|---|
| Operation Flood –Definition of Milk and Nutritive value of milk and ICMR recommendation of nutrients –Per Capita Milk production and availability in India and Haryana<br>State the need for processing milk.<br>Different types of Milks & its Products.<br>List the various units within a dairy processing plant<br>List the machineries used in a dairy processing plant | **5** |

| | |
|---|---|
| **UNIT II**<br>Composition, Standards, Manufacturing - Process and Equipments for Manufacturing and Storage of Curd/Dahi, Yoghurt, Cheese and its types. | **5** |
| **UNIT III**<br>Composition, Standards, Manufacturing - Process and Equipments for Manufacturing and Storage of Khoa, Paneer, Ghee and Ice Cream | **5** |
| | |

**List of Practical:**

1. Testing the quality of milk.
2. Processing of Flavoured milks.
3. Preparation of Dahi/Yoghurt.
4. Preparation of Ghee.
5. Preparation of Khoa/Paneer.
6. Preparation of Ice cream.
7. Preparation of Cheeses.
8. Sensory evaluation of Milk based products.
9. Milk based new product development.
10. How to plan a startup, budgeting, marketing / case study/ entrepreneur (anyone of the above)?
11. Regulations, Licensing and registration of a start-up.
12. Visit to Dairy plant.

**Suggested readings:**


1. Dairy Science: Petersen (W.E.) Publisher – Lippincott & Company
2. Principles and practices of Dairy Farm –Jagdish Prasad
3. Text book of Animal Husbandry - G C Benarjee
4. Hand book of Animal Husbandry - ICAR Edition
5. Outlines of Dairy Technology – Sukumar (De) – Oxford University press
6. Indian Dairy Products – Rangappa (K.S.) & Acharya (KT) – Asia Publishing House.
7. The technology of milk Proceesing – Ananthakrishnan, C.P., Khan, A.Q. and Padmanabhan, P.N. – Shri Lakshmi Publications.
8. Dairy India 2007, Sixth edititon.
9. Economics of Milk Production – BharatiPratima Acharya Publishers.
10. http://www.asci-india.com/BooksPDF/Dairy%20Farmer%20or%20Entrepreneur.pdf
11. https://labour.gov.in/industrial-safety-health

## SKILL COURSES- CHEMISTRY

**COURSE DETAILS:**

| | |
|---|---|
| **Course Title** | **Chemistry Lab Operation and Safety Measures** |
| **Semester** | **Semester-I** |
| **Course Code** | **SEC-1** |
| **Course ID** | **240/CHE/SE/101** |
| **Total Credits** | **03 (Lecture: 02, Tutorial: 0, Practical: 01)** |
| **Total Marks** | **75** |
| **Marks Distribution** | **Theory External: 35** **Theory Internal: 15**<br>**Practical External: 20** **Practical Internal: 05** |

**COURSE CURRICULUM DELIVERY WEEKLY DISTRIBUTION:**

| **Total Hours per Week: 4** | |
|---|---|
| **Lectures (L) Hours per Week: 2** | **Practical (P) Hours per Week: 2** |

## COURSE OBJECTIVES:

- To build foundational knowledge in chemistry lab operations for students.
- To develop laboratory skills and techniques for safe laboratory operations.
- To illustrate the various components of chemical handling and safety measures.
- Awareness of emergency procedures and first aid techniques

## COURSE OUTCOMES:

- Understanding of basic laboratory operations and laboratory management.
- Enhanced laboratory skills and the ability to perform sophisticated complex experiments by the knowledge of chemical handling and safety measures.
- Understanding of emergency procedures and risk assessment.

## DETAILED CONTENT OF COURSE:

## Theory Syllabus: Total Contact Hours: 30

| Unit | Topics | Contact Hours |
|---|---|---|
| **I** | **Introduction to Laboratory Operations**; Overview of laboratory types and functions; Organization of a chemistry laboratory; Common laboratory equipment and their uses; Standard operating procedures (SOPs); Good Laboratory Practices (GLP) | **8** |

| | | |
|---|---|---|
| **II** | **Laboratory Safety Principles**; Importance of laboratory safety; Safety data sheets (SDS); Personal protective equipment (PPE); Laboratory ventilation and fume hoods; Chemical hygiene plan | **8** |
| **III** | **Chemical Handling and Disposal**; Proper storage of chemicals; Labelling and documentation; Handling of hazardous chemicals; Waste management and disposal procedures; Spill response and cleanup | **7** |
| **IV** | **Emergency Procedures and First Aid**; Fire safety and emergency exits; Use of fire extinguishers and fire blankets; First aid procedures for chemical exposure; Emergency eyewash and shower stations; Reporting accidents and incidents | **7** |
| **V** | **Practicals:**<br>1. To demonstrate the correct method for preparing and labelling chemical solutions, including calculating concentrations and volumes.<br>2. To teach students how to safely handle and dispose of chemical waste, including segregating different types of waste and using appropriate disposal methods.<br>3. To perform a risk assessment of a laboratory experiment, identifying potential hazards and implementing control measures to minimize risk.<br>4. To demonstrate the proper technique for performing a titration, including preparing the titrant and analyte, and accurately determining the endpoint.<br>5. To teach students how to perform a standardization of a solution using a primary standard, ensuring the accuracy of concentration measurements.<br>6. To illustrate the process of filtering and recrystallizing a compound to purify it, highlighting safety precautions and waste disposal procedures. | **30** |

**COURSE EVALUATION METHODS**

**Theory Exams:**

**Total Marks: 50 (External: 35 + Internal: 15)**

| | |
|---|---|
| Internal Assessment: 15 Marks | • Class Participation: NIL<br>• Seminar/Presentation/ Assignment: 05 Marks<br>• Mid Term Exam: 10 Marks |
| External Assessment: 35 Marks<br>(03 Hours) | • End Term Exam: 35 Marks |

**Practical Exam:**

**Total Marks: 25 (External: 20 + Internal: 5)**

| | |
|---|---|
| Internal Assessment: 05 Marks | • Class Participation: NIL<br>• Seminar/Lab record/Demonstration: 05 marks |
| External Assessment: 20 Marks<br>(03 Hours) | • End Term Practical Exam: 10 Marks<br>• Lab record: 05 Marks<br>• Viva Voce: 05 Marks |

**Instruction for End Term Theory Exam:**

The Examiner is requested to set nine questions in total, selecting two questions from each section. Question-1 will be a compulsory question consisting short answer type questions covering all the units of the syllabus. All questions should carry equal marks. Log table and non-programmable calculator is allowed.

## RECOMMENDED BOOKS


1. "Laboratory Techniques in Organic Chemistry" by S. V. Sharma
2. "Laboratory Safety: Theory and Practice" by S. S. Mathur
3. "Chemical Safety Data Sheets - Volume 1: Solvents" by CRC Press
4. "Good Laboratory Practice Regulations" by Sandy Weinberg (CRC Press)
5. "Laboratory Quality Management System: Handbook" by World Health Organization (WHO)
6. "Laboratory Management: Principles and Processes" by Denise M. Harmening (Pearson)
7. "Laboratory Management: Principles and Processes" by Bruce R. Kowalski (Springer)
8. "Practical Chemistry" by V. K. Ahluwalia and R. P. Sharma
9. "Quantitative Techniques in Laboratory Management" by V. R. Rajaraman
10. "Experimental Techniques in Physical Chemistry" by S. P. Purohit
11. Prudent Practices in the Laboratory: Handling and Management of Chemical Hazards by the National Research Council, National Academies Press.
12. Laboratory Safety for Chemistry Students by Robert H. Hill and David C. Finster, Wiley.
13. Manual of Laboratory Safety by Nigam R. and Nigam P., Laxmi Publications.
14. CRC Handbook of Laboratory Safety by A. Keith Furr, CRC Press.
15. Chemistry: Principles and Practice by Reger, Goode, and Ball, Cengage Learning.
16. Prudent Practices in the Laboratory: Handling and Management of Chemical Hazards by the National Research Council
17. Laboratory Safety for Chemistry Students by Robert H. Hill and David C. Finster
18. CRC Handbook of Laboratory Safety by A. Keith Furr
19. Hazards in Chemical Laboratory- G.D. Muir

## SEC-1: PYTHON PROGRAMMING

| | | | | |
|---|---|---|---|---|
| Course code | SEC-1 | | | |
| Category | Skill Enhancement Course | | | |
| Course title | Python Programming | | | |
| Course ID | 240/CS/SE101 | | | |
| Scheme and Credits | L | T | P | Credits |
| | 2 | 0 | 2 | 3 |
| Theory Internal | 15 | | | |
| Theory External | 35 | | | |
| Practical Internal | 05 | | | |
| Practical External | 20 | | | |
| Total | 75 | | | |
| Duration of Exam | 3 hrs | | | |

**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 attempt FIVE questions in all, selecting one question from every unit apart from the Question Number 1.

**COURSE OBJECTIVES:** The aim of the course is to understand the core principles of the Python Language. This course will make student to design effective GUI applications.

### UNIT – I

Introduction to Python: Python Interpreter, Python as calculator, Python shell, Indentation, identifier and keywords, literals, strings, Operators: Arithmetic, Relational, Logical, comparison, Bitwise, Assignment, Identity operator and Membership operator; Input output statement; Control statements: Branching, looping, Conditional statement, Exit function

### UNIT – II

String manipulations: Subscript operator, indexing, slicing a string, other functions on strings, string module. Strings and number system: Format functions, converting strings to numbers & Vice Versa. List, Tuples, Sets, Dictionaries: Basic list operators, replacing, inserting, removing an element, searching, Sorting lists, dictionary literals, adding & removing keys, accessing & replacing values, traversing dictionaries

## UNIT – III

Array in Python, Design with Functions: hiding redundancy, complexity, arguments & return values; Formal/Actual arguments, named arguments, program structure and design, Recursive functions, scope & Global statements, Importing modules, Math modules & Random modules.

## UNIT – IV

Exception Handling: Exceptions, except clause, try and finally clause, user defined exceptions. File Handling: Manipulating files & directories, OS & SYS modules, Reading, Writing text & numbers from/to file. Graphics: Turtle module, drawing colors, shapes, digital images, image file formats.

**Text Books:**

[1] Python Programming using problem solving approach by Reema Thareja, Oxford University Press.

[2] Learning Python by Mark Lutz

**Reference Books:**

[1] Introduction to Computation and Programming Using Python with application to understanding data by Guttag John V, PHI

[2] Introduction to Computer Science using Python by Charles Diorbach, Wiley.

[3] Programming Python by Mark Lutz

**Python Programming Lab - List of Practical**

Students are advised to do laboratory/practical practice not limited to, but including the following types of problems:

- Write a program to demonstrate different number data types in Python.
- Write a program to perform different Arithmetic Operations on numbers in Python.
- Write a program to create, concatenate and print a string and accessing sub-string from a given string.
- Write a program to create, append, and remove lists in python.
- Write a program to demonstrate working with tuples in python.
- Write a program to demonstrate working with dictionaries in python.
- Write a python program to find largest of three numbers.
- Write a Python program to construct the stars(*) pattern, using a nested for loop
- Write a Python script that prints prime numbers less than 20.
- Write a python program to find factorial of a number using Recursion.

# INTRODUCTORY COURSE IN R

| | | | | |
|---|---|---|---|---|
| Course code | **SEC-2** | | | |
| Category | Skill Enhancement Course | | | |
| Course title | **Introductory Course in R** | | | |
| Scheme and Credits | L | T | P | Credits |
| | 2 | 0 | 2 | 3 |
| Class work | 25 | | | |
| Exam | 50 | | | |
| Total | 75 | | | |
| Duration of Exam | 3Hrs | | | |

**COURSE OBJECTIVES:** Master R programming fundamentals, data processing techniques, coding constructs, and package usage for efficient data manipulation, analysis, and visualization in real-world applications.

**UNIT I**

**BASICS OF R:** Introduction to R ,Coding Basics, Variables, Calling Functions; Data Transformation-Filter Rows, Arrange Rows, Select Columns ,Add New Variables, Grouped Summaries ,Grouped Mutates and Filters. Running Code, Studio Diagnostics.

**UNIT II**

**DATA PROCESSING:** Data Import-Introduction Parsing a Vector, Parsing a file, Writing to a File, Other Types of Data; Organizing data-Tidy Data, Spreading and Gathering, Separating and Pull, Missing Values, Nontidy Data; Relational Data- Keys, Mutating Joins, Filtering Joins, Set Operations, Strings - Basics ,Matching Patterns with Regular Expressions.

**UNIT III**

**CODING CONSTRUCTS:** Vectors–Introduction, Atomic recursive and augmented vectors. Lists, Loops; Functions – conditional execution, function arguments, return values.

**UNIT IV**

**INSTALLING, LOADING AND USING PACKAGES:** Read/write data from/in files, extracting data from web-sites, Clean data, Transform data by sorting, adding/removing new/existing columns, centring, scaling and normalizing the data values, converting types of values, using string in-built functions, Statistical analysis of data for summarizing and understanding data, Visualizing data using scatter plot, line plot, bar chart, histogram and box plot.



**Text and Reference Books:**

1. Hadley Wickham & Garrett Grolemund, R for Data Science, O'rielly publications
2. Cotton, R., Learning R: a step by step function guide to data analysis. 1st edition. O'reilly Media Inc.
3. Gardener, M. (2017). Beginning R: The statistical programming language, WILEY.
4. Lawrence, M., & Verzani, J. (2016). Programming Graphical User Interfaces in R. CRC press. (ebook)

**List of Practical:**

1. Write a R program to take input from the user (name and age) and display the values.
2. Write a R program to get the details of the objects in memory.
3. Creating a sequence of numbers from 20 to 50 and find the mean of numbers from 20 to 60 and sum of numbers from 51 to 91.
4. Creating a simple bar plot of five subjects marks.
5. Get the unique elements of a string and unique numbers of vectors
6. Appending value to a given empty vector
7. Multiplying two vectors of integer type and length 3
8. Find the sum, mean and product of a vector, ignoring elements like NA and NaN.
9. To create three vectors a,b,c with 3 integers. Combine three vectors to become a 3*3 matrix where each column represents a vector. Print the content of the matrix
10. Program to create a matrix from a list of given vectors

## SEC-1: COMPUTER PROGRAMMING IN C

| | | | | |
|---|---|---|---|---|
| Course code | SEC-1 | | | |
| Category | Skill Enhancement Course | | | |
| Course title | **Computer Programming in C** | | | |
| Course ID | 240/CS/SE102 | | | |
| Scheme and Credits | L | T | P | Credits |
| | 2 | 0 | 2 | 3 |
| Theory Internal | 15 | | | |
| Theory External | 35 | | | |
| Practical Internal | 05 | | | |
| Practical External | 20 | | | |
| Total | 75 | | | |
| Duration of Exam | 3 HRS | | | |

**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 attempt FIVE questions in all, selecting one question from every unit apart from the Question Number 1.

**COURSE OBJECTIVES:**

To equip students with essential skills in C programming including control structures, functions, arrays, pointers, strings, and file handling, preparing them for practical application in software development and system programming

### UNIT-I

Overview of C: History of C, Importance of C, Elements of C: C character set, identifiers and keywords, Data, Program Structure: Data type, constant, variable, arithmetic expression, arithmetic operator, logical operator, input output statement, conditional statement, assignment statements, Header files & library files.

### UNIT-II

Control Structures: Introduction, Decision making with IF – statement, IF – Else and Nested IF, While and do-while, for loop, Break and switch statements, continue statements. Functions: Introduction to functions, Global and Local Variables,

Function Declaration, Standard functions, Parameters and Parameter Passing, Call – by value/reference, Recursion.

**UNIT-III**

Arrays: Introduction to Arrays, Array Declaration and Initialization, Single and Multidimensional Array, Arrays of characters.

Pointers: Introduction to Pointers, Address operator and pointers, Declaring and Initializing pointers, Assignment through pointers, Pointers and Arrays.

**UNIT-IV**

Strings: Introduction, Declaring and Initializing string variables, Reading and writing strings, String handling functions, Array of strings.

Files: Introduction, File reading/writing in different modes, File manipulation using standard function types

**Text Book:**


[1]. Yashwant Kanetkar, “Let us C”, BPB Publications, 2002

[2]. E. Bala Guruswamy, “Programming in ANSI C”, TMH, 1999.

[3]. Al Kelly and Ira Pohl, “A Book on C”, (4th Ed.), Addison Wesley, 1999.


**Reference Books:**


[1]. B. Kernighan and D. Ritchie, “The ANSI C Programming Language”, PHI, 2000.

[2]. Kernighan & Ritchie, "The C Programming Language ANSI C Version", Prentice Hall Software Series

[3]. Herbert Schildt "ANSI C - Made Easy", Osborne McGraw-Hill.


## Computer Programming in C Lab - List of Practical

Students are advised to do laboratory/practical practice not limited to, but including the following types of problems:

- Write a program to display "Hello, World!" on the screen.
- Write a program to perform addition, subtraction, multiplication, and division of two numbers entered by the user.
- Write a program to convert temperature from Celsius to Fahrenheit and vice versa.
- Write a program to calculate the factorial of a given number.
- Write a program to check whether a number entered by the user is prime or not.

- Write a program to print a pyramid pattern using asterisks.
- Write a program to find the sum of elements in an array.
- Write a program to calculate the length of a string and concatenate two strings.
- Write a program to demonstrate pointer arithmetic operations.
- Write a program to read data from a text file and display it on the screen.
- Write a program to sort elements in an array using bubble sort.
- Write a program to find the factorial of a number using recursion.

## SEC-1: OFFICE AND SPREADSHEET TOOLS LEARNING

| | | | | |
|---|---|---|---|---|
| Course code | SEC-1 | | | |
| Category | Skill Enhancement Course | | | |
| Course title | **Office And Spreadsheet Tools Learning** | | | |
| Course ID | 240/CS/SE103 | | | |
| Scheme and Credits | L | T | P | Credits |
| | 2 | 0 | 2 | 3 |
| Theory Internal | 15 | | | |
| Theory External | 35 | | | |
| Practical Internal | 05 | | | |
| Practical External | 20 | | | |
| Total | 75 | | | |
| Duration of Exam | 3 HRS | | | |

**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 attempt FIVE questions in all, selecting one question from every unit apart from the Question Number 1.

**COURSE OBJECTIVES:**

Equip students with practical skills in using MS-Windows, MS-Word for documentation, MS-Excel for spreadsheets, and MS-PowerPoint for presentations, preparing them for efficient and effective use of Microsoft Office applications in professional settings.

### UNIT - I

MS-Windows: Operating system-Definition & functions, basics of Windows. Basic components of windows, icons, types of icons, taskbar, activating windows, using desktop, title bar, running applications, exploring computer, managing files and folders, copying and moving files and folders. Control panel – display properties, adding and removing software and hardware, setting date and time, screensaver and appearance. Using windows accessories.

### UNIT - II

Documentation Using MS-Word - Introduction to word processing interface, Toolbars, Menus, Creating & Editing Document, Formatting Document, Finding and replacing text, Format painter,

Header and footer, Drop cap, Auto-text, Autocorrect, Spelling and Grammar Tool, Document Dictionary, Page Formatting, Bookmark, Previewing and printing document, Advance Features of MS-Word-Mail Merge, Macros, Tables, File Management, Printing, Styles, linking and embedding object, Template.

**UNIT - III**

Electronic Spread Sheet using MS-Excel - Introduction to MS-Excel, Cell, cell address, Creating & Editing Worksheet, Formatting and Essential Operations, Moving and copying data in excel, Header and footer, Formulas and Functions, Charts, Cell referencing, Page setup, Macros, Advance features of MS-Excel-Pivot table & Pivot Chart, Linking and Consolidation, Database Management using Excel-Sorting, Filtering, Validation, What if analysis with Goal Seek, Conditional formatting.

**UNIT - IV**

Presentation using MS-PowerPoint: Presentations, Creating, Manipulating & Enhancing Slides, Organizational Charts, Excel Charts, Word Art, Layering art Objects, Animations and Sounds, Inserting Animated Pictures or Accessing through Object, Inserting Recorded Sound Effect or In-Built Sound Effect.

**Reference Books:**


1. Microsoft Office – Complete Reference – BPB Publication
2. Learn Microsoft Office – Russell A. Stultz – BPB Publication
3. Courter, G Marquis (1999). Microsoft Office 2000: Professional Edition. BPB.
4. Koers, D (2001). Microsoft Office XP Fast and Easy. PHI.
5. Nelson, S L and Kelly, J (2002). Office XP: The Complete Reference. Tata McGraw- Hill.


**Office and Spreadsheet Tools Learning Lab - List of Practical**

Students are advised to do laboratory/practical practice not limited to, but including the following types of problems:

1. Create a Resume using Word's templates to create a professional-looking resume.
2. Format a Document with different fonts, sizes, and styles for text.
3. Insert Images learn how to insert and position images within a document.
4. Build a simple table to organize information neatly.
5. Add page numbers or document titles in headers and footers.

6. Use basic formulas (e.g., SUM, AVERAGE) to calculate expenses.
7. Convert your budget data into a visual chart (e.g., pie chart or bar graph).
8. Arrange data in alphabetical or numerical order, and filter out specific entries.
9. Highlight cells based on certain criteria (e.g., color cells with values above a certain number).
10. Use different slide layouts and themes to build a presentation.
11. Apply slide transitions to make your presentation more dynamic.
12. Enhance your slides by adding multimedia elements.
13. Make text and objects on your slides enter or exit with animations.

**Course Type: Skill Enhancement Course**

**Offered by Department of Commerce**

**Semester: 1**

| | |
|---|---|
| **Name of Subject: Computerised Accounting System** | **Maximum Marks: 75 (TI + TE + PI + PE= 15+35+5+20)** |
| **Course ID: 240/COM/SE111** | **Time Allowed: 1 hours 30 minutes** |
| **Credits: 3 (L-T-P=2---1)** | **Skill Enhancement Course** |

**Instructions for Paper Setter:** The question paper shall be divided into two sections. Section 'A' shall comprise seven short answer type questions from the syllabus carrying one mark each, which shall be compulsory. The answer to each question should not normally exceed 50 words. **Section 'B' shall comprise eight questions of 7 marks each (2 questions from each unit**). The students will be required to attempt four questions from section B 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. All questions will carry equal marks.

**Course Outcomes: -** After completing the course, students will be able to:

**CO1:** the accounting principles and concepts.
**CO2:** Prepare Final accounts of Sole traders and maintain other registers and reports.
**CO3:** Compare the differences between manual accounting and Computerised accounting.
**CO4:** Develop skills to master the practical aspects of Computerised accounting.

**Course Contents:**

| |
|---|
| **Unit I:** Introduction to Accounting**-** Definition and scope of accounting; Basic accountingprinciples and concepts; Types of accounting; Double-entry accounting system; Recording transactions- Journal entries and ledger posting. |
| **Unit II:** Financial Accounting Basics**-** Understanding financial statements- Income statement,balance sheet, and cash flow statement; Accounting for assets, liabilities, and owner's equity; Adjusting entries and the accrual basis of accounting. |
| **Unit III**: Introduction to Computerised Accounting- Meaning, importance and scope of Computerised Accounting; Advantages and disadvantages; Difference between Manual Accountingand Computerized Accounting; Features and functionalities of computerized accounting software. |
| **Unit IV:** Computerised Accounting and Software Applications- Introduction to different accounting software such as QuickBooks, BUSY S/W, Tally, ERP Tools etc. |

**Practical exercises:**

1. Hands-on practice of recording transactions manually.
2. Preparation of basic financial statements: Trial balance, income statement, and balance sheet.
3. Exploring features and functionalities of accounting software.
4. Hands-on experience with a selected accounting software (e.g., Tally).
5. Case studies illustrating application of software tools for accounting system.

**Suggested Readings:**


1. Computerised Accounting and Business systems: Kalyani publications.
2. Mastering Tally: Dinesh Maidasani, Firewal Media.
3. Implementing Tally ERP 9: A.K Nadhani and K.K Nadhani, BPB publications.
4. Manuals of Respective Accounting packages.
5. "Computerized Accounting with QuickBooks Online: A Practical Approach" by Dr. Janet Horne.
6. Article-"Understanding Financial Statements: A Beginner's Guide" by John A. Tracy.

## Semester I

# Food Safety & HACCP (240/BACA/SE-107)

| L | T | P | L | T | P | Credits | MARKS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (Hrs) | | | Credits | | | | TI | TE | PI | PE | Total |
| 2 | 1 | - | 2 | 1 | - | 3 | 25 | 50 | - | - | 75 |

**Course Description:**
The study of Food Safety and HACCP will equip the students as food handlers and catering professionals. This module will enable students to recognize the importance of maintaining food safety, quality and standards while preparing or manufacturing food. A basic knowledge of food safety laws and regulations including HACCP along with industry best practices, go a long way in achieving success in food business.

**Course Objectives:**
The objective of this course is to
CO1: To Explain the importance of hygiene and sanitation in professional kitchens.
CO2: To Describe food contamination types—physical, chemical, and biological
CO3: To Identify best practices to maintain food safety.

**Units (Theory):**
**Unit I: Hygiene and Sanitation**
- Personal Hygiene and Grooming
- Hand Washing Techniques
- Basic Kitchen Hygiene
- Food Storage & Sanitation

**Unit II: Microbiology**
- Classification of Microorganisms
- Factors Affecting Growth of Microorganisms
- Food Poisoning and Spoilage
- Food Preservation Methods

**Unit III: Food Contamination**
- Physical Contamination
- Chemical Contamination
- Biological Contamination

**Unit IV: Food Safety management systems**
- HACCP
- Food Safety Laws

**Suggested Readings:**

- Sukhneet Suri & Anita Malhotra, (2014), Food Science, Nutrition and Safety, Pearson Publication.
- Prasanta Mukherjee (2018), Textbook of Food Science, Nutrition & Safety
- Arduser, L. (2005). HACCP & Sanitation. USA: Atlantic Publishing Group.
- Forsythe, S. (1998). Food Hygiene, Microbiology & HACCP. Leeds: Springer.
- Soni, D. G. (2011). Kitchen Stewarding Operation & Management. New Delhi: Kanishka Publishers

| Business English Communication | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO** | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PSO1** | **PSO2** | **PSO3** |
| CO1 | 1 | - | 2 | - | - | 3 | - | - | 1 | - | - |
| CO2 | 1 | - | 2 | - | - | 3 | - | - | 1 | - | 2 |
| CO3 | - | - | 1 | 2 | - | 3 | - | - | 1 | 2 | - |
| CO4 | - | - | 1 | 2 | 3 | - | - | - | 1 | - | 2 |

## Semester I

### Hospitality Discovery Experience (240/BBAHM/SE107)

| L | T | P | L | T | P | Credits | MARKS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (Hrs) | | | Credits | | | | TI | TE | PI | PE | Total |
| - | - | 6 | - | - | 3 | 3 | - | - | 25 | 50 | 75 |

**Course Description:**
This introductory course provides an immersive, hands-on introduction to the hospitality industry, offering students a unique opportunity to explore various aspects of hospitality management through experiential learning. The course is designed to facilitate immersive learning, enabling students to gain firsthand experience in different hospitality avenues. The course emphasizes the development of professional skills, including customer service excellence, teamwork, problem-solving, and effective communication. Through direct interaction with industry professionals and exposure to the latest trends and technologies, students will gain a comprehensive understanding of the diverse and dynamic nature of the hospitality industry.

**Course Objectives:**
The objective of this course is to

CO1 To Gain practical, hands-on experience through site visits, workshops, event simulations, and other experiential learning activities.
CO2 To Learn customer service skills and understand the importance of delivering exceptional service to guests.
CO3 To Develop cultural competency and sensitivity to diverse cultures, traditions, and customs encountered within the hospitality industry.
CO4 To Relate to current trends, innovations, and emerging opportunities within the hospitality industry through guest lectures, industry panels, and research presentations.

**Units (Practical):**

**Unit I: Immersion in the Hotel and Food & Beverage Industry**

- Introduction to the hotel operations and academic observations
- Food and Beverage Experiences
- Public Area Settings
- Guest Online Feedback

**Unit II: Immersion in the Retail industry**

- Introduction to the operations of a retail set-up
- Customer experiences and delivery
- Public area settings
- Customer feedback - Online

**Unit III: Immersion in the Entertainment Industry**

- Introduction to the operations of an entertainment space
- Customer experiences and delivery
- Public area settings
- Customer Feedback - Online

**Unit IV: Immersion in other Allied Hospitality Industries like Real Estate, Mixed Used, Aviation, Cruise etc.**

- Introduction into the allied Industry operations
- Customer experiences and delivery
- Public area settings
- Customer Feedback – Online

| Hospitality Discovery Experience | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO** | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PSO1** | **PSO2** | **PSO3** | **PSO4** |
| CO1 | 3 | 1 | - | 2 | 1 | - | - | 1 | 3 | 2 | 1 | 3 |
| CO2 | 3 | - | 2 | - | 2 | 2 | 3 | 1 | 2 | - | - | 2 |
| CO3 | 3 | - | 2 | - | 3 | 2 | 3 | 2 | 2 | - | - | 1 |
| CO4 | 3 | 1 | 2 | 1 | 1 | 1 | - | - | 1 | 3 | 3 | 1 |

**Syllabus**
**Semester 1**

| | |
|---|---|
| Name of Subject: **Application of Computer in Tourism** | Maximum Theory Marks:75 (TE+TI+PE+PI=35+15+0+25) |
| Course ID: 240/TTM/SE101 | Time Allowed: 2 Hours |
| Credits 3 (L-T-P = 2+1+0) | **Skill Enhancement Course (SE)** |

**Instructions for paper setter:** Examiner is requested to set **one compulsory and eight other questions, two from each unit.** The compulsory question should be of 07 marks and should cover entire syllabus. Student should attempt four other questions i.e. one from each unit.

**Practical Paper Evaluation**

**Evaluation Mode**: Internal Assessment,

Evaluators: Internal Faculty Members from other departments of same college.

***Note: Faculty members teaching the paper will not conduct the internal assessment.***

**Course Outcomes: - After completing the course, students will be able: -** After completing the course, students will be able:

CO1: To understand the classification, generations, characteristics, limitations, and applications of computers in the tourism industry.
CO2: To analyze the components of computer hardware, including input, storage, processing, and output devices, as well as the block diagram of a computer.
CO3: To apply the knowledge of different types of software, including system, application, and utility software, as well as the basics of MS Office applications (Word, Excel, and PowerPoint) in the tourism industry.
CO4: To evaluate the significance of the internet and ICT in the tourism industry, including successful online tourism business models, online tourism services and benefits, and case studies of popular tourism websites.

**COURSE CONTENTS:**

| |
|---|
| **Unit 1:** |
| **Introduction to Computers:** Introduction to Computer: Classification, Generations, Characteristics & Limitations, And Application of Computer in Tourism Industry. |
| **Unit 2:** |
| **Introduction to Computer Hardware's:** Components of Computers – Hardware: Hardware elements – input, storage, processing & output devices. Block diagram of computer. |
| **Unit 3:** |
| **Introduction to Computers Software's:** Types of Software, System Software, Application Software, Utility Software's, Use of MS- Office: Basics of MS- Word. MS- Excel and MS Power Point. |
| **Introduction to Internet and ICT:** Introduction to Internet and ICT & its significance in Tourism industry, Successful online tourist business models – an overview of Tourism websites -Online tourism services and benefits – IT and its role in tourism, Case studies of easemytrip.com, Make my trip.com, and goibibo.com. |

**Practical:** To supplement above theoretical inputs.

**Suggested Readings:**


- Leon & Lion, Introduction to Computers, Vikas Publishing House, New Delhi.
- June Jamrich Parsons, Computer Concepts 7th Edition, Thomson Learning, Bombay.
- Robsoon Wendy, Strategic Management and Information Systems, Pitman Publishers.
- Comer 4e, Computer networks and Internet, Pearson Education.
- White, Date Communications & Computer Network, Thomson Learning.


**MAPPING MATRIX OF COURSE:**

**Table: CO's - PO's, and CO's - PSO's Matrix for the Course: Application of Computer in Tourism**

| COs | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PSO1 | PSO2 |
|---|---|---|---|---|---|---|---|---|---|
| **CO1** | 1 | 3 | 1 | 1 | 1 | 1 | 3 | 2 | 2 |
| **CO2** | 1 | 2 | 2 | 1 | 1 | 1 | 3 | 2 | 2 |
| **CO3** | 1 | 3 | 1 | 1 | 2 | 1 | 2 | 3 | 3 |
| **CO4** | 3 | 3 | 1 | 3 | 1 | 2 | 3 | 3 | 3 |
| **Average** | 1.50 | 2.75 | 1.25 | 1.50 | 1.25 | 1.25 | 2.75 | 2.50 | 2.50 |

240/ECO/SE202

# BA. WITH MAJOR IN ECONOMICS (SEC)

## SEMESTER II

### SKILL ENHANCEMENT COURCES

SEC-1

| Session 2024-2025 | | | |
|---|---|---|---|
| **Part-A Introduction** | | | |
| Subject | Economics | | |
| Semester | I | | |
| Name of the Course | Data Types and Sources | | |
| Course Code | 240/ECO/SE202 | | |
| Course Type: (CC/MCC/MDC/ CCM/ DSEC/VOC/DSE/PC/AEC/ VAC | SEC | | |
| Course Learning Outcomes (CLO) | 1. To impart knowledge among students about data types and differences in various types<br>2. To impart knowledge about the sources of primary and secondary data<br>3. To make the students understand the concept of data collection and guide them on the skill of a good data collection | | |
| Credits | Theory | practical | Total |
| | 02 | 1 | 03 |
| Contact Hours | 02 | 02 | 03 |
| **Max. Marks: 75**<br>**Internal Assessment Marks: 15**<br>**End Term Exam Marks: 35**<br>**Practical internal: 05**<br>**Practical external: 20** | **Time: 2 Hrs** | | |

**Part-B Instructions for Paper Setters**

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

| Unit | Topics | Contact Hours |
|---|---|---|
| I | Data: meaning, types and importance of data in research, qualitative and quantitative data, primary and secondary data, Nominal, ordinal, interval, and ratio scale data. Cross – Sectional and Time Series Data, | |

| | |
|---|---|
| II | Sources of Primary Data:Interview method, observation method, questionnaire method, and schedule method. Advantages and Limitations of primary data |
| III | Sources of Secondary Data: Census Data, Newspapers, Periodicals, records various government and non-government agencies. Reports published by various commissions constituted by Government. Reports published by international agencies and organizations, Journals, books, and published articles. Advantages and Limitations of secondary data.<br><br>Data Collection – Meaning, objectives, Characteristics of good data collection, Advantages and Limitations. |
| | |

| Part-C Learning Resources | |
|---|---|
| **Recommended Books/E-Resources/LMS:** | " Research Methodology: AStep-by-Step Guide for Beginners" by Ranjit Kumar Kothari.<br>C.R."Research Methodology: Methods and Techniques"<br>"Statistics for Business and Economics" by Paul Newbold, William J. Carlson, and Betty Thorne |
| | |

* Applicable for courses having practical component.

# Gurugram University Gurugram, Haryana (India)

**Skill Enhancement Course from the department for pool of the Courses in the University**

(These courses are offered by each department for students of other departments/same department and is designed to provide value-based and/or skill-based knowledge and should contain both theory and lab/hands-on/training/field work.)

(As per NEP 2020 w.e.f session 2024-25)

**Course Title: Surveying Method in Geography -Semester-1**

Paper Code: **SEC-1 (Theory and Practical Paper),** 240/GEO/SE101

**Note for paper setter:**

1. Seven Questions will be set in all and students will be required to attempt 4 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 (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

| | | |
|---|---|---|
| Credit: 03 (2+0+2) L+T+P Hrs/Week | Total Marks | 75 Marks |
| Time: 3 Hours (Theory)<br>Time: 4 Hours (Practical ) | End Semester Exam:<br>Internal Assessment (Attendance)* | 35 Marks<br>15 Marks |
| **Note: Theory Exam:** as the instructions mentioned under<br>**Practical Exam:** as the instructions mentioned under<br>Practical Exam Time: 4 Hours | Practical Exam<br>Internal Assessment (Practical)** | 20 Marks<br>05 Marks |

**Learning/Course Objectives:** Understanding about basic survey method aspects. To create awareness about survey method and its importance in map making. Acquaintance with nature and significance of survey system.

**Learning/Course Outcomes:** CO1: To gain knowledge of how surveying aids helps in map making.CO-2: To create a better understanding and draw conclusions based on survey technique.CO-3: To recognize the ways in which survey method affects several facets of our existence on our planet.CO-4: To become acquainted with survey issues from a geographical perspective. CO-5: Students will be able to understand the survey issues and concepts that are important for long-term development and growth.

## UNIT-I

Basic concepts of surveying, Plain Surveying & Geodetic Surveying, survey equipment's coordinate system and map: magnetic and true north, polar and rectangular.

## UNIT-II

Plane Table Survey, Setting up a plain table- centering, leveling, orientation, Principal of surveying with plain table, Radiation, Intersection &Traversing-open and close, Sources of error in plain table survey .

(04 Exercise)

## UNIT-III

Brief introduction of Chain & Tape Survey, Principals of surveying by chain, Open Traverse and Close Traverse survey, Methods of recording measurements in the field book, Duties and responsibilities during chain and tape survey, Plotting the survey, Merits and demerits of survey . (02 Exercise)

**UNIT-IV**

Prismatic Compass Survey : sources of error in prismatic compass survey, Radiation method, sketch method, Traverse method-open and close ,merits and demerits of prismatic compass survey, methods of correcting bearing , Role of Prismatic compass in Point to point march. 04 Exercise)

Note: (i) Skill Enhancement Course from the department for pool of the Courses in the University is offered by each department for students of other departments/same department and is designed to provide value-based and/or skill-based knowledge and should contain both theory and lab/hands-on/training/field work.

**Theory Exam**

(ii) The Question one of paper is compulsory. Question one of paper will contain Multiple Choice Questions (MCQ)/Objective type/Terms of seven marks (seven MCQ/ Objective type/Terms of one mark each). (iii) The question paper will have four units. Two questions will contain from each unit of the syllabus. Candidates are required to attempt one question from each unit. These questions will be of Seven marks each. *Internal Assessment of 15 marks will be 05 marks of attendance + 10 marks of Practical assignment /file/sessional (Theory Part)

**Practical Exam**

(iii) The question paper Practical part out of unit two, three and four will comprise Exercise Part. (3 Question x 4 Marks= 12 Marks). Each unit of comprising exercise part of question paper will comprise one question from each unit of the syllabus .Candidates (s) are required to attempt three question / exercise from the units. These questions will be of 04 marks each. Candidates will be required to attempt exercise neatly and cleanly on the provided geography sheet.(a) Record file will be of Maximum four Marks.(b)Exercise will be of maximum twelve Marks.(c) Viva Voce will be of Maximum four Marks. ** Internal Assessment of 05 marks will be based on attendance (Practical Part)

**Recommended Readings:**


- Khan, A.A. (1996). *Text Book of Practical Geography*, Concept, New Delhi.
- Lawrence, GRP.(1968). *Cartographic Methods*, Methuen, London.
- Mishra R.P. and Ramesh A. (1999). *Fundamentals of Cartography*, Concept Publishing Company, New Delhi.
- Monkhouse, F.J. and Wilkinson, H.R. (1994). *Maps and Diagrams*, Methuen, London.
- Robinson, A.H. et.al. (1995) *Elements of Cartography*, John Wiley & Sons, .
- Singh, R.L., (1979). *Elements of Practical Geography*, Kalyani Publisher, New Delhi.
- Singh ,Gopal (1991),*Map Work and Practical Geography*,SBD Publishers, Distributors,4075,Nai Sarak,Delhi
- Sarkar, A.K (1997): Practical Geography-A Systematic Approach, Orient Longman, Calcutta.
- Steers, J.B. (1992) *Map Projections*; University of London Press, London.

**Sem 1**

| | |
|---|---|
| **Subject: Monumental Studies-I** | **Maximum Marks: 75**<br>**(TE + TI + PE + PI = 50+ 25+ 0 + 0)** |
| **Course Code: SEC 1, 240/HIS/SE 101** | **Time Allowed: 3 Hrs.** |
| **Credits : 3 (2+1)** | **Skill Enhancement Course** |

Note for paper setter:

1. Seven Questions will be set in all and students will be required to attempt 4 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 (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

**Course Outcomes: -** After completing the syllabus, students will be able to:

1. The student will be able to identify stylistic classifications, also understand the progress of art through time and space.
2. This study enables the student to understand the meaning, use, purposes and worth of art evidences from ancient times, especially the sculptures and paintings.
3. the learner will be able to identify the regional styles of art, temple structures of different periods and regions.

**COURSE CONTENTS:**

**Unit1:** A brief history of Archaeological Monuments 1. Ashokan Pillars 2. Monuments of Ellora 3. Ajanta caves 4. Kandaria Mahadev Temple (Khajuraho), Brihdeswar Temple (Tanjore) and Sun Temple (Konark)

**Unit 2**: Origins and Development of Early Temples 1. Forms of Temples: Nāgara, Drāvid a and Vesara and their salient features 2. Salient features of post-Gupta Temples. Temple and Sculptures of North India 3. Temple Architecture of Khajuraho.

**Unit 3**: Field Practice: Monumental survey and Project.

***Suggested Readings:***

*Agrawala, P.K., Guptakālīna Kalā evam Vāstu (Hindi), Varanasi, 1994.*
*Bajpai, K.D., Bhāratīya Vāstukalā kā Itihāsa (Hindi), Lucknow, 1972.*
*Brown, P., Indian Architecture (Buddhist and Hindu Periods) (relevant portions), Bombay, 1971.*
*Coomaraswamy, A.K., History of Indian and Indonesian Art, London, 1927.*
*Gupta, P.L., Bhāratīya Sthāpatya (Hindi), Varanasi, 1970.*
*Jauhari, M., Cola aura Unakī Kalā, Varanasi, 1968. Krishna Dev, Temples of North India, New Delhi, 1969.*
*Majumdar, R.C. and A.D. Pusalker (eds.), The History and Culture of the Indian People, Vols. III and V (relevant portions), Bombay, 1988, 1989.*
*Saraswati, S. K., A Survey of Indian Sculpture, Calcutta, 1956 (Reprint edn.). Srinivasan, K. R., Temples of South India, New Delhi, 1972*

## Skill Enhancement Course

Course ID : 240/HS/SE101

| | | | |
|---|---|---|---|
| **Semester** | | | **I** |
| **Name of the Course CC-A1** | | | **Food Preservation** |
| **Course Learning Outcomes (CLO):**<br>After completion of the course, the students will be able to:<br>1. Students will understand the principles of preservation behind methods of preservation.<br>2. Students will be able to comprehend the stages of cookery in food preservation.<br>3. Students will gain hands on experience about preparation of various food preservation-based recipes. | | | |
| Credits | **Theory** | **Practical** | **Total** |
| | 2 | 1 | 3 |
| Contact Hours | 2 | 2 | 4 |
| **Max. Marks:75**<br>**Internal Assessment Marks: 20** (15 TI + 05 PI)<br>**End Term Exam Marks: 55** (35 TE + 20 PE) | **Time: 2hrs (Theory), 2hrs (Practical)** | | |
| **Part B- Contents of the course** | | | |

**Instructions for Paper-Setter**

Nine questions will be set in all. Question No.1 comprising of objective/short answer type questions from the entire syllabus, will be compulsory. The remaining eight questions will be set taking two questions from each unit. The candidates will be required to attempt

| Q.No.1 & four others selecting one question from each unit. All questions carry equal marks. | |
|---|---|
| **UNIT I**<br>**1.** Importance of food preservation<br>**2.** Types of spoilage by micro-organisms and enzymes<br>**3.** Basic principles of food preservation | **CONTACT HOURS**<br>**8** |
| **UNIT II**<br>1. Methods of drying & dehydration used for preservation for selected products.<br>2. Role of packaging and storage in preservation. | **7** |
| **UNIT III**<br>**1.** Natural Food preservatives – Use of salt, acid, sugar, oil etc. (role and examples)<br>2. Chemical Preservatives- definition, role, permitted preservatives and FSSAI guidelines. | **8** |
| **UNIT IV**<br>1. Role of pectin in preserved foods<br>2. Stages in sugar cookery<br>3. Process of pickling | **7** |
| **Practical (30 Hours)**<br>1. Hands on experience in preparation of Jams, Jellies, marmalades, squash and sauces.<br>2. Hands on experience in pickle making (Mango, lemon, green chilli and mixed vegetables)<br>3. Hands on experience for preservation by drying technique by making papad and chips.<br>4. Visit to small scale food preservative making industries. | |
| **Part C-Learning Resources**<br>1. Maney S (2008). Foods, Facts and Principles, 3 rd Edition Published by Wiley Eastern, New Delhi.<br>2. Usha Chandrasekhar (2002) Food Science and Application in Indian Cookery, Phoenix Publishing House P. Ltd., New Delhi.<br>3. Raina U, Kashyap S, Narula V, Thomas S Suvira, Vir S, Chopra S (2010) Basic Food Preparation: A Complete Manual, 4th Edition, Orient Black Swan Ltd, Mumbai<br>4. Srivastava R.P. (2012), Fruit and vegetable preservation – Principles and Practices, International Book Distributing Co., (IBDC), New Delhi. | |

| Session: 2024-25 | | | |
|---|---|---|---|
| **Part A - Introduction** | | | |
| **Subject** | Mathematics | | |
| **Semester** | I | | |
| **Name of the Course** | Calculation Skills with Vedic Mathematics-I | | |
| **Course Code** | SEC-1 | | |
| **Course ID** | 240/MAT/SE101 | | |
| **Course Type: (CC/ MIC/ MDC/VOC/ AEC/ VAC/SEC)** | SEC | | |
| **Pre-requisite for the course (if any)** | NA | | |
| **Course Learning Outcomes(CLOs)** | After completing this course, the learner will be able to:<br>1. Gain the knowledge of *Sutras* and *Upsutras* from Vedic Mathematics.<br>2. Have the procedural knowledge of multiplication of complicated numbers quickly with the aid of Vedic *sutras* and generate tables of any number.<br>3. Make use of Vedic *sutras* to quickly divide, and find LCM and HCF of many digit numbers.<br>4. Acquire the cognitive skills to calculate square and cube roots of numbers speedily with accuracy. | | |
| | **Theory** | **Practical** | **Total** |
| **Credits** | 2 | 1 | 3 |
| **Contact Hours** | 2 | 2 | 4 |
| **Internal Assessment Marks** | 15 | 5 | 20 |
| **End Term Examination Marks** | 35 | 20 | 55 |
| **Examination Time** | 3Hrs | 3Hrs | Max. Marks:75 |

| Part B-Contents of the Course | | |
|---|---|---|
| **Instructions for Paper- Setter: 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 contain 7 parts covering entire syllabus. The examinee will be required to attempt 5 questions, selecting one question from each unitand the compulsory question.** | | |
| **Unit** | **Topics** | **Contact Hours** |
| I | History of Vedic Mathematics and introduction to its*Sutras* and *Upsutras*.<br>Addition in Vedic Mathematics: Without Carrying, Dot Math method; subtraction in Vedic Mathematics: *Nikhilam Navatashcaramam Dashatah* (All from 9 and last from 10).Fraction: Addition and Subtraction. | 8 |
| **II** | Multiplication of two numbers of two digits(*Ekadhikena Purvena* method), Multiplication of two numbers of three digits, (*Ekanyunena Purvena* method, *Urdhva Tiryagbhyam* method, *Nikhilam Navatashcaramam Dashatah* method), Combined Operations, Generating Tables (*Nikhilam*). | **8** |
| III | Division: *Nikhilam Navatashcaramam Dashatah* (two digits divisor), *ParavartyaYojyet* Method (three digits divisor).<br>Divisibility: *Ekadhikena Purvena* Method (two digits divisor), *Eknunen Purvena* Method (two digits divisor) LCM, HCF. | 8 |
| IV | Squares of any two digits numbers: Base method; Squares of numbers ending in 5: *Ekadhikena Purvena* Method. Square Roots: *Dwandwa Yoga* (Duplex) Method, Square root (four digit number). Cubing: *Yavadunam* Method, Cube root (six digit numbers) | 8 |
| **Practical** | | |
| **The examiner will set 4 questions at the time of practical examination by taking Course Learning Outcomes (CLOs) into consideration. The examinee will be required to solve 2 questions. The evaluation will be done on the basis of practical record, viva-voce and written examination.**<br><br>**Problem Solving-Questions related to the following problems will be solved and record of those will be maintained in the Practical Note Book:**<br><br>1. Addition of two 5-digit numbers by without carrying and dot method.<br>2. Subtraction of 5-digit numbers by base method.<br>3. Multiplication of 2-digit numbers by base method. | | 30 |

| | |
|---|---|
| 4. Multiplication of 3-digit numbers by numbers consisting of all 9s.<br>5. Multiplication of 3-digit numbers by numbers consisting of all 1s.<br>6. Multiplication of 3-digit numbers by Vinculum method.<br>7. Division of 2-digit and 3-digit numbers.<br>8. Generating table of any number.<br>9. Square of any 2-digit number by base method.<br>10. Square of any number ending with 5.<br>11. Square root of 4-digit numbers.<br>12. Cube root of 6-digit numbers.<br>13. LCM and HCF of numbers.<br>14. Answer checking by digit-sum method | |

## Suggested Evaluation Methods

| | |
|---|---|
| **InternalAssessment:**<br>➢ **Theory 15**<br>● Class Participation: 4<br>● Seminar/presentation/assignment/quiz/class test etc.: 4<br>● Mid-Term Exam: 7<br>➢ **Practicum 5**<br>● Seminar/Demonstration/Viva-voce/Lab records etc.: 5 | **End Term Examination:**<br>➢ **Theory 35**<br>Written Examination<br>➢ **Practicum 20**<br>Lab record, viva- voce, written examination. |

## Part C-Learning Resources

**Recommended Books:**


1. U. S. Patankar and S. M. Patankar (2018). *Elements of Vedic Mathematics.* TTU Press.
2. V.Singhal (2014).*Vedic Mathematics for all ages.* Motilal Banarsidas Publishers.
3. R.K.Thakur (2013).*The Essentials of Vedic Mathematics.* Rupa Publications. New Delhi.
4. P. Tiwari and V.K. Pandey (2012). *Vedic Mathematics - Modern Research Methods*. Campus Books International.
5. S. K. Kapoor (2006).*Vedic Geometry Course*. Lotus Press.
6. A. Gupta (2004). *Power of Vedic Mathematics with Trigonometry.* Jaico Publishing House.
7. S.B.K. Krishna Trithaji(1990). *Vedic Mathematics.* Motilal Banarsidas, New Delhi.

# Semester-I

## Skill Enhancement Courses

## Course ID - 240/PHYP/SE101

### BASICS of INSTRUMENTATION SKILLS

**Marks (Theory): 35** **Credits:2 (30 lectures)**
**Marks (Internal Assessment): 15** **Time : 3 Hrs**

*Note: The paper setter is to set nine questions in all. Question no. 1 (compulsory based on the entire syllabus) will consist of seven short answer type questions. The rest of the eight questions are to be set uniformly, with two questions from each unit selected. A student is required to attempt five questions, selecting one from each unit along with compulsory question no 1. The question paper shall contain 20% numerical problems in the relevant papers.*

| | |
|---|---|
| **Course Objective:** The course imparts practical knowledge about commonly used electronic instruments, including a multimeter, cathode ray oscilloscope, and LCR circuit, to undergraduate physics students. | **Course Outcome:** After completing this course, students will be able to understand the basic equipment used in a physics laboratory. |

**UNIT-I**

Basic of Measurement: Instruments accuracy, precision, sensitivity, Resolution range, etc. Errors in measurements and loading effects, Random and systematic errors, Error propagation Multimeter: Principles of measurement of DC voltage and DC current, AC voltage, AC current and resistance. Specifications of a multimeter and their significance.

**UNIT-II**

Electronic Voltmeter and their Advantage for voltage measurement w.r.t. input impedance and sensitivity, Principles of current & voltage measurement, Electronic Voltmeter/Multimeter and their significance

**UNIT-III**

Oscilloscope: Block diagram of basic CRO, CRT, electrostatic focusing and acceleration (Explanation only– no mathematical treatment), brief discussion on screen phosphor, visual persistence, Time base operation, synchronization, Front panel controls, Specifications of CRO and their significance, Use for the measurement of voltage (dc and ac), frequency and time period.

**UNIT-IV**

Impedance Bridges and Q-meters: Block diagram of bridge, Working principles of basic (balancing type) RLC bridge. Specifications of RLC bridge, Block diagram and working principles of a Q- Meter.

Digital Instruments: Comparison of analog & digital instruments. Characteristics of a digital meter. Working principles and block diagram of digital voltmeter.

**References:**


1. A text book in Electrical Technology - B L Theraja - S Chand and Co. Performance and design of AC machines - M G Say ELBS Edn.
2. Digital Circuits and systems, Venugopal, 2011, Tata McGraw Hill. Logic circuit design, Shimon P. Vingron, 2012, Springer.
3. Digital Electronics, Subrata Ghoshal, 2012, Cengage Learning.
4. Electronic Devices and circuits, S. Salivahanan & N. S. Kumar, 3rd Ed., 2012, Tata Mc-Graw Hill


## BASICS OF INSTRUMENTATION SKILLS LAB

**Marks (External) : 20** **Credits : 1(30Hrs)**
**Marks (Internal Assessment)** : **05** **Time : 3 Hrs**

1. Each student should perform at-least five (any) experiments.
2. The students are required to calculate the error involved in a particular experiment.
3. List of experiments may vary.

**List of Experiments:**

1. To observe the loading effect of a multimeter while measuring voltage across a low resistance and high resistance.
2. To observe the limitations of a multimeter for measuring high frequency voltage and currents.
3. To measure Q of a coil and its dependence on frequency, using a Q- meter.
4. To observe sine wave, square wave, triangular wave and ramp waveforms on the C.R.O. and to measure amplitude and frequency of the waveforms.
5. Measurement of time period, frequency, average period using universal counter/ frequency counter.
6. Measurement of rise, fall and delay times using an Oscilloscope.
7. Measurement of R, L and C using a LCR bridge/ universal bridge.
8. To study the variation in current and voltage in a series LCR circuit and hence determine the resonant frequency of the circuit
9. To study the variation in current and voltage in a parallel LCR circuit and hence determine the resonant frequency of the circuit
10. To study the effect of voltmeter resistance on voltage measurement.

**References:**


1. A text book in Electrical Technology - B L Theraja - S Chand and Co. Performance and design of AC machines - M G Say ELBS Edn.
2. Digital Circuits and systems, Venugopal, 2011, Tata McGraw Hill. Logic circuit design, Shimon P. Vingron, 2012, Springer.
3. Digital Electronics, Subrata Ghoshal, 2012, Cengage Learning.
4. Electronic Devices and circuits, S. Salivahanan & N. S.Kumar, 3rd Ed., 2012, Tata Mc-Graw Hill.

COURSE Id: 240/PSY/SE101

**Semester-1**

**SEC01 Life Skill (Credits 03)**

**Maximum Marks: 75**
**Theory Examination: 35**
**Theory Internal Assessment: 15**
**Practical Examination: 20**
**Practical Internal Assessment: 05**
**Examination Time: 2 hrs**

**Course Outcomes:**

- Learned the concept of life skills and its importance in relation to personality development of an individual.
- They became aware of the components of life skills and the method of imparting knowledge of life skills.
- The students have learned more on Life Skills

Instructions:
The students will be required to attempt four questions in all. Question No. I will be compulsory comprising of 5 short answer type questions of 1 mark each and will cover the entire syllabus 1X 5 = 5 marks. In addition to it, Question Nos. II to VII will consist of long answer (essay type) questions, two Questions from each Unit with internal choice carrying 10 marks each i.e. 3 X 10 = 30 marks thus making it the total weight age to 35 marks. Three questions to be attempted. One from each unit.

**Unit-I**
Introduction, Life skills Vs Other skills, The concept of life skills, Use of core skills in daily life, Life skill used by the characters.

**Unit-II**
Types of life skills: Thinking skills – Decision making, Goal Setting and Motivation, Positive Thinking. Overcoming doubt, fear, procrastination and perfectionism.

**Unit-III**

Life Skills in Specific: Interpersonal Skills – Coping Skills – Communication skills, Negotiation skills, Leadership, Team Building, Presentation Skills.

***References:***

1. Baron.A. Robert. Branscombe, R. Nyla et al. (2010). (12th Edition) New Delhi: Tata McGraw Hill.
2. Bishop, S. (1999). Assertiveness skills – A source book of activities, New Delhi: Viva Publishers Pvt. Ltd.
3. Burnard, P. (1999). Interpersonal Skills – A source book of activities, New Delhi: Viva Publishers Pvt.Ltd.

**Semester-1**

**SEC-1:- Basic of Social Research**
**Credit-3**
**240/SOC/SE101**

**Maximum Marks –50**
**Theory – 35**
**Internal Assessment – 15**
**Time – 3 hours**

The students will be required to attempt four questions in all. Question No. I will be compulsory comprising of 4 short answer type questions of 2 marks each and will cover the entire syllabus 4X 2 = 8 marks. In addition to it, Question Nos. II to VII will consist of long answer (essay type) questions, two Questions from each Unit with internal choice carrying 14 marks each i.e. 3 X 14 = 42 marks thus making it the total weight age to 50 marks .Three questions to be attempted. One from each unit.

**Course Outcomes:**

- The students will get to know about basic understanding of social research.
- The students will be introduced with qualitative methods in social research.
- The students will be introduced with quantitative methods in social research

**UNIT – I**

**Concepts of Social Research:** Nature, Definition and Steps of Social Research; Objectivity and Subjectivity in Social Research

**UNIT – II**

**Qualitative Methods:** Nature & Characteristics of observation, Interview, Case Study, Content Analysis and Social Survey - Their Importance in Social Research

**UNIT – III**

**Quantitative Methods:** Nature & Characteristics; Research Design, Sampling and Hypothesis : Their Nature, Types and Importance of Social Research

**Readings :**

Ahuja, Ram (2001): Research Methods, New Delhi: Rawat Publication.

Goode, W.J. and P.K.Hatt (1952): Methods in Social Research, New York: McGraw

International.

Seltiz, Claire et al. (1959): Research Methods in Social Relations, New York: Henry.

Holt and Co.

Srivastava, Prakash G.N.(1994): Advances Research Methodology, Delhi: Radha Publication.

Thakur, Devender(2003): Research Methodology in Social Science, Delhi: Deep and Deep Publication.

Young, P.V.(1988): Scientific Social Survey and Research, New Delhi Prentice Hall.

| SEC-SKILL ENHANCEMENT COURSE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ZOOLOGY: SEMESTER-I | | | | | | | COURSE ID : 240/ZOO/SE101 | |
| **Course Type** | **Course Code** | **Name of the Course** | **Credit** | **Contact Hours/ Week** | **Internal Assessment marks** | **End Term Marks** | **Max. Marks** | **Exam Duration** |
| | | **Bird Watching Techniques** | **1** | **1** | **5** | **20** | **25** | **2hrs.** |
| | | **Practical** | **2** | **4** | **15** | **35** | **50** | **4hrs.** |

Level of the course: NA

Pre-requisite for the course(if any):NA

**Course Learning Outcomes(CLO):**

1. Students will be able to learn about the theory of camera trap
2. Learners will be able to learn about installation of camera trap
3. This Practice will be effective for students for collection of data with camera trap
4. Learners will be able theory of camera trap field operations
5. Students will get practical exposure of camera trap

**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. 1and four more questions selecting one question from each unit.

| UNIT | TOPICS | CONTACTHOURS |
|---|---|---|
| **I** | Introduction to Bird watching<br>Characteristics of Birds with flight adaptations<br>Important field signs of bird watching | **4** |
| **II** | Zoological Names of Important birds<br>Field characters of important birds<br>Sexual dimorphism in birds | **4** |
| **III** | Important Indian Bird areas<br>Important Bird areas of Haryana<br>Resident &Migratory Birds | **4** |
| **IV** | Birds as bio-indicators<br>Birds in food chain and Agriculture<br>Bird Migration | **3** |
| **V Practical** | 1. Instruments in Bird watching<br>2. Identification of Birds<br>3. Sexual Dimorphism studies in Birds<br>4. Field visits to local Bird areas | **60** |

**Learning Resources**


1. Birds of Indian sub continent by Richard Grimmett, Inskipp.
2. Birds of Haryana. A field guide by Kalsi and Coworkers
3. Birds of Basai Wetlands Haryana by Deepak Rai and Coworkers.
4. Birding basics: Tips, tools and techniques for great bird watching by Noah Stryckar.

**Housekeeping Operations-I**
**Course ID - 240/HHA/SEC107**

| L | T | P | Credits | TI | TE | PI | PE | Time Allowed |
|---|---|---|---|---|---|---|---|---|
| 2 | - | 2 | 3 | 15 | 35 | 5 | 20 | __ Hours |

**Type of Course: - Skill Enhancement Course**

| Core Course (CC) | Minor Course (MIC) including Vocational Courses (VOC) | Multidisciplinary Course (MDC) | Ability Enhancement Course (AEC) | Skill Enhancement Courses (SEC) | Value Addition Courses (VAC) | Internship |
|---|---|---|---|---|---|---|
| | | | | √ | | |

**Introduction to the Course**:
The course aims to provide basic knowledge and understanding of housekeeping operations in a hotel. It equips learners with the knowledge of the various duties and responsibilities and areas within the department and the hotel that come under the purview of a housekeeper's responsibilities. As cleanliness sets a first impression for quality and demonstrates the standards of the hospitality establishment, particular emphasis is put on making learners competent in a range of housekeeping functions.
**Course Outcome: -** After completing the course learners will be able to:
CO1. Understand the scope/breadth of the housekeeping department and its scope in other organizations.
CO2. Recognize the purpose, role and areas of responsibility of the housekeeping department in a hotel unit.
CO3. Explain the importance of cleanliness and hygiene and identify the guest room layouts, status codes, and the standard contents of a guest room.
CO4. Practice the process of cleaning different types of guest rooms, selection and usage of diverse cleaning equipment.

**Detailed Syllabus:**
**Unit-I**
Understanding Housekeeping-Importance and scope of housekeeping in hotels and other organizations; different levels of hierarchy and their duties and responsibilities; various sections, areas and layouts in the housekeeping department; different types of Guest rooms and their components.
**Unit-II**
Housekeeping Control desk - importance and functions in housekeeping, and its coordination with other departments; Daily Routines and Systems in Housekeeping - activities, operational procedures, and shifts in 'The housekeeping day'; control desk procedures- different types of keys, key control and underline the purpose and procedure of gate pass, room move, and lost and found; situation handling - practice and demonstration of handling guest inquiries, requests, and complaints.
**Unit-III**
Cleaning of Guestrooms and Public Area-Classification and Selection of Housekeeping

Inventories i.e., equipment, agents, and linens and its control; Linen identification (guest room linen, F&B linen, health club linen) and the SOPs of Bed Making; Types of Soil and Standards of Cleaning; Science and frequencies of cleaning; Cleaning of Public Areas.

**Unit-IV**

Composition, care and cleaning of different surfaces such as metal, glass, wood etc.; methods of cleaning and maintaining different surfaces; importance and methods of protecting hard surfaces from wear and tear, tarnishing, etc.

**TEXTBOOK**

- Raghubalan, G. and Raghubalan, S., (2015) *Hotel housekeeping: Operations and Management,* Oxford University Press, New Delhi

**OTHER RECOMMENDED TEXTS**

- Andrews, S., (2008) Hotel Housekeeping Operations and Management, McGraw Hill Education, New Delhi
- Aggarwal, D. K, (2006) Housekeeping management, Aman Publications, New Delhi
- Jones, T.J.A, (2005) Professional Management of Housekeeping Operations (4th edn), John Wiley, New Jersey

**Final Assessment (FA)**

| | |
|---|---|
| Theory Internal **(TI)** | **15%** |
| Theory External **(TE)** | **35%** |
| Practical Internal **(PI)** | **5%** |
| Practical External (**PE)** | **20%** |
| **Final Assessment (FA) = (TI+TE+PI+PE)** | **100%** |

**Theory Internal (TI):** The **(TI)** will be done through in-class tests/ coursework/presentations/journals or assignments.
**Theory External (TE):** The **(TE)** will be done through the end-term theory examination.
**Practical Internal (PI)**: The **(PI)** will be done through in-class continuous assessment.

**The question paper pattern** for the end-term examination will be **35 Marks** and will follow the following pattern:

| | | |
|---|---|---|
| **Question 1** | Questions No. One (1) will have five (5) MCQs (All Compulsory). | **5*1=5 marks** |
| **Question 2** | Questions No. Two (2) will have six (6) brief answer questions/ options.<br>(The learner has to answer five (5) out of the six (6). | **5*2=10 marks** |
| **Question 3** | Question No. Three (3) will have three (3) descriptive questions/ options.<br>(The learner has to answer two (2) out of the three (3). | **2*5= 10 marks** |
| **Question 4** | Question No. Four (4) will have Two (2) descriptive questions/ options.<br>(The learner can answer one (1) out of the Two (2). | **1*10=10 marks** |
| | **Total Marks** | **35 marks** |

**Mapping Matrix of Course**

**Table 1: CO-PO Matrix for the Course**

| COURSE OUTCOMES | PO1 | PO2 | PO3 | PO4 |
|---|---|---|---|---|
| CO1 | 2 | 3 | 2 | 2 |
| CO2 | 3 | 3 | 2 | 2 |
| CO3 | 3 | 2 | 2 | 2 |
| CO4 | 2 | 2 | 2 | 2 |
| Average | 2.5 | 2.5 | 2 | 2 |

**Table 2: CO-PSO Matrix for the Course**

| CO | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| CO1 | 2 | 3 | 2 | 2 |
| CO2 | 3 | 3 | 2 | 2 |
| CO3 | 3 | 2 | 2 | 2 |
| CO4 | 2 | 2 | 2 | 2 |
| Average | 2.5 | 2.5 | 2 | 2 |

**Human Values and Ethics**
**Course ID – 240/HHA/VAC108**

| L | T | P | Credits | TI | TE | PI | PE | Time Allowed |
|---|---|---|---|---|---|---|---|---|
| 2 | - | - | 2 | 15 | 35 | - | - | __ Hours |

**Type of Course: - Value Addition Course**

| Core Course (CC) | Minor Course (MIC) including Vocational Courses (VOC) | Multidisciplinary Course (MDC) | Ability Enhancement Course (AEC) | Skill Enhancement Courses (SEC) | Value Addition Courses (VAC) | Internship |
|---|---|---|---|---|---|---|
| | | | | | √ | |

**Introduction to the Course**:

The aim of the Human Values and Ethics module is to help students recognize the essential connection between 'values' and 'skills' for achieving lasting happiness and prosperity. It seeks to cultivate a holistic perspective towards life and profession, grounded in a deep understanding of human reality and the broader existence. This perspective will form the foundation for Universal Human Values, guiding learners towards a value-based, fulfilling way of living. By

**Housekeeping Operations-I**
**Course ID - 240/HM/SE107**

| L | T | P | Credits | TI | TE | PI | PE | Time Allowed |
|---|---|---|---|---|---|---|---|---|
| 2 | - | 2 | 3 | 15 | 35 | 5 | 20 | __ Hours |

**Type of Course: - Skill Enhancement Course**

| Core Course (CC) | Minor Course (MIC) including Vocational Courses (VOC) | Multidisciplinary Course (MDC) | Ability Enhancement Course (AEC) | Skill Enhancement Courses (SEC) | Value Addition Courses (VAC) | Internship |
|---|---|---|---|---|---|---|
| | | | | √ | | |

**Introduction to the Course**:
The course aims to provide basic knowledge and understanding of housekeeping operations in a hotel. It equips learners with the knowledge of the various duties and responsibilities and areas within the department and the hotel that come under the purview of a housekeeper's responsibilities. As cleanliness sets a first impression for quality and demonstrates the standards of the hospitality establishment, particular emphasis is put on making learners competent in a range of housekeeping functions.
**Course Outcome: -** After completing the course learners will be able to:
CO1. Understand the scope/breadth of the housekeeping department and its scope in other organizations.
CO2. Recognize the purpose, role and areas of responsibility of the housekeeping department in a hotel unit.
CO3. Explain the importance of cleanliness and hygiene and identify the guest room layouts, status codes, and the standard contents of a guest room.
CO4. Practice the process of cleaning different types of guest rooms, selection and usage of diverse cleaning equipment.

**Detailed Syllabus:**
**Unit-I**
Understanding Housekeeping-Importance and scope of housekeeping in hotels and other organizations; different levels of hierarchy and their duties and responsibilities; various sections, areas and layouts in the housekeeping department; different types of Guest rooms and their components.
**Unit-II**
Housekeeping Control desk - importance and functions in housekeeping, and its coordination with other departments; Daily Routines and Systems in Housekeeping - activities, operational procedures, and shifts in 'The housekeeping day'; control desk procedures- different types of keys, key control and underline the purpose and procedure of gate pass, room move, and lost and found; situation handling - practice and demonstration of handling guest inquiries, requests, and complaints.
**Unit-III**
Cleaning of Guestrooms and Public Area-Classification and Selection of Housekeeping Inventories i.e., equipment, agents, and linens and its control; Linen identification (guest room linen, F&B linen, health club linen) and the SOPs of Bed Making; Types of Soil and Standards of Cleaning; Science and frequencies of cleaning; Cleaning of Public Areas.
**Unit-IV**

Composition, care and cleaning of different surfaces such as metal, glass, wood etc.; methods of cleaning and maintaining different surfaces; importance and methods of protecting hard surfaces from wear and tear, tarnishing, etc.

**TEXTBOOK**

- Raghubalan, G. and Raghubalan, S., (2015) *Hotel housekeeping: Operations and Management,* Oxford University Press, New Delhi

**OTHER RECOMMENDED TEXTS**

- Andrews, S., (2008) Hotel Housekeeping Operations and Management, McGraw Hill Education, New Delhi
- Aggarwal, D. K, (2006) Housekeeping management, Aman Publications, New Delhi
- Jones, T.J.A, (2005) Professional Management of Housekeeping Operations (4th edn), John Wiley, New Jersey

**Final Assessment (FA)**

| | |
|---|---|
| Theory Internal **(TI)** | **15%** |
| Theory External **(TE)** | **35%** |
| Practical Internal **(PI)** | **5%** |
| Practical External (**PE)** | **20%** |
| **Final Assessment (FA) = (TI+TE+PI+PE)** | **100%** |

**Theory Internal (TI):** The **(TI)** will be done through in-class tests/ coursework/presentations/journals or assignments.
**Theory External (TE):** The **(TE)** will be done through the end-term theory examination.
**Practical Internal (PI)**: The **(PI)** will be done through in-class continuous assessment.

**The question paper pattern** for the end-term examination will be **35 Marks** and will follow the following pattern:

| | | |
|---|---|---|
| **Question 1** | Questions No. One (1) will have five (5) MCQs (All Compulsory). | **5*1=5 marks** |
| **Question 2** | Questions No. Two (2) will have six (6) brief answer questions/ options.<br>(The learner has to answer five (5) out of the six (6). | **5*2=10 marks** |
| **Question 3** | Question No. Three (3) will have three (3) descriptive questions/ options.<br>(The learner has to answer two (2) out of the three (3). | **2*5= 10 marks** |
| **Question 4** | Question No. Four (4) will have Two (2) descriptive questions/ options.<br>(The learner can answer one (1) out of the Two (2). | **1*10=10 marks** |
| | **Total Marks** | **35 marks** |

**Mapping Matrix of Course**

**Table 1: CO-PO Matrix for the Course**

| COURSE OUTCOMES | PO1 | PO2 | PO3 | PO4 |
|---|---|---|---|---|
| **CO1** | 2 | 3 | 2 | 2 |
| **CO2** | 3 | 3 | 2 | 2 |

| | | | | |
|---|---|---|---|---|
| **CO3** | 3 | 2 | 2 | 2 |
| **CO4** | 2 | 2 | 2 | 2 |
| **Average** | 2.5 | 2.5 | 2 | 2 |

**Table 2: CO-PSO Matrix for the Course**

| CO | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 2 | 3 | 2 | 2 |
| **CO2** | 3 | 3 | 2 | 2 |
| **CO3** | 3 | 2 | 2 | 2 |
| **CO4** | 2 | 2 | 2 | 2 |
| **Average** | 2.5 | 2.5 | 2 | 2 |

**Introduction to HACCP**
**Subject code – Course ID - 240/ICA/SE107**

| L | T | P | Credits | TI | TE | PI | PE | Time Allowed |
|---|---|---|---|---|---|---|---|---|
| 2 | - | 2 | 3 | 15 | 35 | 5 | 20 | __ Hours |

**Type of Course: - Multidisciplinary Course**

| Core Course (CC) | Minor Course (MIC including Vocational Courses (VOC) | Multidisciplinary Course (MDC) | Ability Enhancement Course (AEC) | Skill Enhancement Courses (SEC) | Value Addition Courses (VAC) | Internship | Research Project / Dissertation |
|---|---|---|---|---|---|---|---|
| | | | | √ | | | |

**Introduction to the Course:**

The main goal of the course is to give students a thorough foundation in HACCP and food sanitation principles.
Additionally, to educate them on food law and regulation information, microbiological characteristics, and the
hygienic handling of food.

**Course Outcome: -** After completing the course learners will be able to:
CO1. After completion of the subject a student will be able to:
CO2. Understand Food Microbiology, Food Contamination and Spoilage;
CO3. Follow sanitary procedure during food handling;
CO4. Understand the importance of personal hygiene

**Detailed Syllabus:**
**Unit-I**
Causes of foodborne diseases, need to control foodborne disease, history and emergence food safety system, role of urbanization and industrialization, HACCP in the context of good manufacturing and hygienic practices, definition of food hygiene, assurance of food safety and quality; traditional method of food control, importance of system in food safety management define Safe food, use of HACCP and principles of HACCP.
**Unit-II**
Benefits of HACCP system, analyse HACCP application, explore the preferred portfolio of channels; attain basic knowledge to apply HACCP, classification of microorganism; define the objectives of food technologies, describe the different food techniques used, food technologies used to control the development of microbiological hazard; origin of natural hazard, importance of raw materials, potential hazards in raw material, sanitation and cleaning.
**Unit-III**
Principle of food hygiene, hygienic manufacturing practice; guidelines of HACCP, application of HACCP system,
defining CCP, methods of monitoring; monitoring, critical limit, potential corrective actions, method of monitoring, methods of sanitation.
**Unit-IV**

Difference between validation and verification, food safety confirmation, effectiveness of CCP, importance of
sanitation and cleaning; aspects & implementation of HACCP, techniques & execution of HACCP.

**TEXT BOOK**

- Mortimore, S and Wallace. C., 2021. "HACCP: A Practical Approach". 2nd Edition. Kulwer
  Academic/Plenum Publishers.

**OTHER RECOMMENDED TEXTS**

- Sprenger R. A., 2020. "HYGIENE FOR MANAGEMENT: A TEXTBOOK FOR FOOD SAFETYCOURSE".
  11 th edition.Highfield.co.uk.limited,
- Nations, U. 2019. Food Quality and Safety Systems: A Training Manual on Food Hygiene and the Hazard.
  Food and Agriculture Org.
- Donald A. Corlett, J.R. 2020. HACCP User's Manual. Aspen Publishers, Inc, Gaithersburg, Maryland.
- HACCP Concepts, 2nd Ed. 2018. CIFT, ICAR, Cochin, Kerala, India.

**Final Assessment (FA)**

| | |
|---|---|
| Theory Internal **(TI)** | **15 Marks** |
| Theory External **(TE)** | **35 Marks** |
| **Final Assessment (FA) = (TI)+(TE)** | **50 Marks** |

- **Theory Internal (TI):** The **(TI)** will be done through in-class continuous assessment/in-class test/ coursework/presentation & Assignment.
- **Theory External (TE):** The **(TE)** will be done through end term theory exam.
- **The question paper pattern** for the end term examination will be **50 Marks** and will follow the following pattern:

| | | |
|---|---|---|
| **Question 1** | Questions No. One (1) will have eight (8) MCQs (All Compulsory). | **8*1=8 marks** |
| **Question 2** | Questions No. Two (2) will have six 6) brief answer questions/options.<br><br>(The learner has to answer four (4) out of the six (6). | **4*2=8 marks** |
| **Question 3** | Question No. Three (3) will have five (5) descriptive questions/options<br>(The learner has to answer three (3) out of the five (5). | **3*6= 18 marks** |
| **Question 4** | Question No. Four (4) will have Three (3) descriptive questions/options<br>(The learner can answer Two (2) out of the Three (3). | **2*8= 16 marks** |

| | | |
|---|---|---|
| | **Total Marks** | **50 marks** |

**Mapping Matrix of Course**

**Table 1: CO-PO Matrix for the Course**

| COURSE OUTCOMES | PO1 | PO2 | PO3 | PO4 |
|---|---|---|---|---|
| **CO1** | 2 | 2 | 2 | 2 |
| **CO2** | 2 | 2 | 2 | 2 |
| **CO3** | 2 | 2 | 2 | 3 |
| **CO4** | 2 | 3 | 2 | 2 |
| **Average** | 2 | 2.25 | 4 | 2.25 |

**Table 2: CO-PSO Matrix for the Course**

| **CO** | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 2 | 2 | 2 | 2 |
| **CO2** | 2 | 2 | 3 | 2 |
| **CO3** | 2 | 2 | 2 | 3 |
| **CO4** | 3 | 2 | 2 | 2 |
| **Average** | 2.25 | 2 | 2.25 | 2.25 |

**Skill Enhancement Course**
**Semester I**
**SEC 1 Your Laws, Your Rights**

**SEC 1 Your Laws, Your Rights (Credits 03)**
**Course ID: 240/PS/SE101**

**Maximum Marks: 75**
**Theory Examination: 50**
**Theory Internal Assessment: 25**
**Examination Time: 3 hrs**

**Course Outcomes**

- Students will be able to define and apply key legal terms, doctrines, and principles.
- Students will develop critical thinking skills to evaluate legal arguments, identify relevant facts, and apply legal rules to reach well-supported conclusions.
- Apply legal research skills*: Students will learn to find, evaluate, and use legal authorities, such as statutes, cases, and regulations, to support legal arguments.
- Students will learn to write clearly, concisely, and persuasively in legal memoranda, briefs, and other documents.
- Students will gain an understanding of the structure and function of the legal system, including courts, legislatures, and administrative agencies.
- Students will learn about the professional responsibilities and ethical obligations of lawyers, including confidentiality, conflicts of interest, and candor.

1. **Seven Questions will be set in all and students will be required to attempt 4 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 (2x7=14 marks).**
3. **For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).**

**Unit 1**
**Law relating to criminal justice administration**

A. How to file a complaint, First information report (FIR) B.
Detention, arrest and bail

**Unit 2**
**Equality and non- discrimination**

A. Gender: the protection of women against domestic violence, rape and sexual harassment. B.
Caste: laws abolishing untouchability and providing protection against atrocities
C. Class: laws concerning minimum wages.

D. Disability and equality of participation and opportunity.

**Unit 3**

**Redistribution, recognition and livelihood**.

A. Traditional rights of forest dwellers and the issue of women's property rights.
B. Rural employment guarantees.

# SKILL ENHANCEMENT COURSE

<table>
<tr><th colspan="4">Part A - Introduction</th></tr>
<tr><td colspan="4"></td></tr>
<tr><td colspan="2">Semester</td><td colspan="2">II</td></tr>
<tr><td colspan="2">Name of the Course ID: 240/BIOT/SEC201</td><td colspan="2">CELL CULTURE TECHNIQUES</td></tr>
<tr><td colspan="4">Course Learning Outcomes (CLO):<br>1. Students will gain significant experience in handling the cells (microbial, animal & plant) through culture. Through integrated learning methods, utilizing hands-on training to reinforce lecture material participants will learn the biological basis and relevance of the process of culturing cells.<br>2. The course will provide in detail knowledge of basic instruments involved in culture laboratory, so that the students can easily be acquainted as operators in several cell culture & diagnostic laboratory.<br>3. In-hand experiments based on cell culture, development of slides, staining and analysis, along with documentation will impart experiential knowledge to students. The students in future can easily find way in cell culture & diagnostic laboratory.<br>4. Students will learn basics of plant propagation, learning massive propagation of plants now-a-days is very popular for profitable enterprise.</td></tr>
<tr><td colspan="2"></td><td>Theory</td><td>Practical</td><td>Total</td></tr>
<tr><td colspan="2"></td><td>1</td><td>2</td><td>3</td></tr>
<tr><td colspan="2">Contact Hours</td><td>1</td><td>4</td><td>5</td></tr>
<tr><td colspan="2">Max. Marks:75<br>(20TE+ 5TI + 15 PI + 35PE)</td><td colspan="3">Time: 1h (Theory), 4h (Practical)</td></tr>
<tr><td colspan="5">Part B- Contents of the Course</td></tr>
<tr><td colspan="5">Instructions for Paper-Setter<br>Six questions will be set in all. Question No.1 comprising objective/short answer type questions from the entire syllabus, will be compulsory. The remaining five questions will be set taking one questions from each section. The candidates will be required to attempt Q.No.1 &three others selecting one questions from each section. All questions carry equal marks.</td></tr>
</table>

| | |
|---|---|
| Introduction & biology of cultured cells; Equipment, aseptic techniques, safety protocols, Properties and uses of chemicals commonly used in cell culture laboratories. Culture vessels & media development (for bacteria, animal & plant cell culture); solid versus suspension culture. Different phases of cell growth (cell cycle concept and factors affecting cell growth in culture). Applications of cell culture<br>Animal Cell Culture: Basic techniques of mammalian cell culture preparation: disaggregation of animal tissues (mechanical, enzymatic and EDTA). Concept of Primary culture & secondary culture. | **CONTACT HOURS**<br>**15** |
| Plant Cell Culture: Overview of plant cell culture: Seed culture, Embryo culture, Callus culture, Organ culture, Protoplast culture, Anther culture; Storage and revival of cells;<br><br>Induction of critical thinking: Demonstrate soft skills, such as decision making, planning, organizing, problem solving, analytical thinking, and documentation of experiments. | |

**List of Practicals**

1. **Preparation of solutions and standards -** Preparation of test reagents and buffers. Protocols for proper mixing of chemicals. Safety precautions while preparation and storage of incompatible chemicals and reagents
2. **Usage and maintenance of basic equipment of biotechnology lab:** Principle, working & precautions of several instruments (weighing balance, autoclave, laminar air flow, incubator, spectrophotometer, centrifuge, microscope)
3. **Preparation of media:** Maintenance and storage of purified water for media (plant tissue culture media, microbiological media, and animal cell culture media) preparation. Preparation and storage of concentrated stock solutions.
4. **Handling of cells *in-vitro*:** Determination of cell growth, cell count and viability. Preparation of blood and bacterial smear for staining. Demonstration of different staining involving simple staining, differential staining, negative staining etc.
5. **Isolation & culture:**
   a) Isolation of bacterial cells from soil and their characterization using staining;
   b) Isolation of skin bacteria and their determination of catalase activity;
   c) Preparation of primary cell culture from fresh animal tissue (liver): disaggregation of animal tissues (mechanical, enzymatic and EDTA)
   d) Preparation and sterilization of plant explants along with callus induction & micropropagation

**6. Laboratory record writing:** Method of record writing, data collection and recording, reporting of result, discussion of result, summary writing, effective power point presentation taking any experiment as example.

**Part C-Learning Resources**

1. Culture of Animal Cells by R Ian Freshney
2. Animal Cell Culture: Principles and Practice by Shalini Mani, Manisha Singh, Anil Kumar
3. Experiments In Microbiology, Plant Pathology and Biotechnology - K. R. Aneja
4. Plant cell culture protocols, - Victor M. Loyola-Vargas and Felipe Vázquez-Flota (2nd edition).

## OBJECT ORIENTED PROGRAMMING

| | | | | |
|---|---|---|---|---|
| Course code | **SEC-2** | | | |
| Category | Skill Enhancement Course | | | |
| Course title | **Object Oriented Programming** | | | |
| Course ID | 240/CS/SE203 | | | |
| Scheme and Credits | L | T | P | Credits |
| | 2 | 0 | 2 | 3 |
| Theory Internal | 15 | | | |
| Theory External | 35 | | | |
| Practical Internal | 05 | | | |
| Practical External | 20 | | | |
| Total | 75 | | | |
| Duration of Exam | 3 Hrs | | | |

***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 attempt FIVE.

**COURSE OBJECTIVES:** Master programming fundamentals, object-oriented principles including classes, inheritance, constructors, destructors, operator overloading, pointers, virtual functions, friend functions, and file handling for proficient application development and problem-solving.

### UNIT-I

**Elements of Programming and Function Introduction:** Basic Elements of Programming, Console I/O Operations, Function: Function Prototyping, Call and Return By Reference, Inline Function, Default and Const Arguments, Function Overloading, Arrays, Manipulators and Enumeration.

### UNIT-II

**Classes and Object Oriented Methodology:** Basic Concepts/Characteristics of OOP. Advantages and Application of Oops, Procedural Programming Vs OOP. Classes and Objects: Specifying a Class, Creating Objects, Private & Public Data Members and Member Functions, Defining Inline Member Functions, Static Data Members and Member Functions. Arrays within Class, Arrays of Objects, Objects as Function Arguments, Returning Objects.

**UNIT-III**

**Constructors, Destructors, Operators Overloading and Inheritance. Constructors and Destructors:** Introduction, Parameterized Constructors, Multiple Constructors in A Class, Constructors With Default Arguments, Dynamic Initialization of Objects, Copy Constructors, Dynamic Constructors, Const Objects, Destructors Operators Overloading: Definition, Unary and Binary Overloading, Rules for Operator Overloading. Inheritance: Defining Derived Classes, Types of Inheritance, Constructors and Destructors In Derived Classes.

**UNIT-IV**

**Pointers Virtual & Friend functions and file handling Pointers:** Pointer to Objects, This Pointer, "New" and "Delete" Operators, Virtual Function, Friend Functions. Opening, Closing A File, File Modes, File Pointers and Their Manipulation, Sequential Input and Output Operations: Updating A File, Random Access, and Error Handling During File Operations, Command Line Arguments.

**Text and Reference Books:**


1. K.R.Venugopal, Rajkumar, T. Ravishankar, "Mastering C++", TMH ,ISBN:0-07- 463454-2.
2. Farrel,"Object-Oriented Programming using C++",Cenage Pub, ISBN: 9788131505175
3. Parimala N.," Object Orientation through C++", Macmillan India Ltd. Publication, ISBN:-0333 93202-1
4. E Balagurusamy, "Object Oriented Programming with C++ ", Tata McGraw Hill Publishing Company Limited, New Delhi, ISBN:- 13- 978-07-066907-9


## Object Oriented Programming Lab - List of Practical

Students are advised to do laboratory/practical practice not limited to, but including the following types of problems:

1. Write a C++ program to find the sum of individual digits of a positive integer.

2. Write a C++ program to generate the first n terms of the sequence.

3. Write a C++ program to generate all the prime numbers between 1 and n, where n is a value supplied by the user.

4. Write a C++ program to find both the largest and smallest number in a list of integers.

5. Write a C++ program to sort a list of numbers in ascending order.

6. Write a Program to illustrate New and Delete Keywords for dynamic memory allocation

7. Write a program Illustrating Class Declarations, Definition, and Accessing Class Members.

8. Program to illustrate default constructor, parameterized constructor and copy constructors.

9. Write a Program to Demonstrate the i) Operator Overloading .ii) Function Overloading.

10. Write C++ programs that illustrate how the following forms of inheritance are supported: a) Single inheritance b) Multiple inheritance c) Multi level inheritance d) Hierarchical inheritance

## DATA MANAGEMENT

| Course code | **SEC-2** | | | |
|---|---|---|---|---|
| Category | Skill Enhancement Course | | | |
| Course title | **Data Management** | | | |
| Course ID | 240/CS/SE202 | | | |
| Scheme and Credits | L | T | P | Credits |
| | 2 | 0 | 2 | 3 |
| Theory Internal | 15 | | | |
| Theory External | 35 | | | |
| Practical Internal | 05 | | | |
| Practical External | 20 | | | |
| Total | 75 | | | |
| Duration of Exam | 3 Hrs | | | |

***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 attempt FIVE questions in all, selecting one question from every unit apart from the Question Number 1.

**COURSE OBJECTIVES:** Gain comprehensive knowledge of data management principles including database systems, SQL programming, data security, NoSQL databases, big data concepts, cloud databases, and ethical considerations for effective data storage, retrieval, and management in diverse environments.

### Unit I

**Introduction to Data Management:** Definition and importance of data management, Overview of database systems and their evolution; Data Modeling: Introduction to data models (relational, hierarchical, network), Entity-Relationship (ER) model basics; Relational Databases: Fundamentals of relational databases, Basic SQL queries (SELECT, INSERT, UPDATE, DELETE); Database Design: Conceptual database design: Introduction to normalization.

### Unit II

**Database Design and Querying:** Advanced Database Design: Logical and physical database design, Indexing and performance tuning; SQL Programming: Complex SQL queries (joins, subqueries, aggregate functions), Views, triggers, and stored procedures; Normalization: Normal forms beyond 1NF to 3NF; Transactions and Concurrency: ACID properties, Concurrency control techniques.

## Unit III

**Data Storage and Management:** File Structures and Indexing: Sequential, indexed, and hashed file organization, B-trees and other indexing techniques; Data Security: Concepts of data security and access control, Encryption and decryption techniques; Data Integrity: Ensuring data consistency and reliability, Error handling and recovery; Query Optimization: Query processing and optimization techniques.

## Unit IV

**Advanced Topics in Data Management:** NoSQL Databases: Types of NoSQL databases (document, key-value, columnar), Comparison with relational databases; Big Data Concepts: Introduction to big data and its characteristics, Overview of Hadoop and MapReduce; Cloud Databases: Introduction to cloud computing and database-as-a-service (DBaaS), Scalability and elasticity in cloud databases; Ethical and Legal Aspects: Data governance and compliance, Privacy issues and regulations (GDPR, CCPA).

**Text and Reference Books:**


1. "Database System Concepts" by Abraham Silberschatz, Henry F. Korth, and S. Sudarshan
2. "Database Systems: The Complete Book" by Hector Garcia-Molina, Jeffrey D. Ullman, and Jennifer Widom
3. "Database Management Systems" by Raghu Ramakrishnan and Johannes Gehrke
4. "NoSQL Distilled: A Brief Guide to the Emerging World of Polyglot Persistence" by Martin Fowler and Pramod J. Sadalage
5. "Big Data: Principles and Best Practices of Scalable Realtime Data Systems" by Nathan Marz and James Warren
6. "Cloud Computing: Concepts, Technology & Architecture" by Thomas Erl, Ricardo Puttini, and Zaigham Mahmood
7. "Ethics in Information Technology" by George Reynolds


## Data Management Lab - List of Practical

Students are advised to do laboratory/practical practice not limited to, but including the following types of problems:

1. Write a query in SQL to retrieve all columns from a table named employees.
2. Write a query in SQL to filter records from customers where city is 'New York'.
3. Write a query in SQL to retrieve records from orders sorted by order_date in descending order.
4. Write a query in SQL to calculate the total number of orders in the orders table.
5. Write a query in SQL to retrieve customer names along with their order details using INNER JOIN between customers and orders.
6. Write a query in SQL to find employees whose salary is greater than the average salary.
7. Write a query in SQL to insert a new record into the products table.
8. Write a query in SQL to update the price of a specific product in the products table.
9. Write a query in SQL to delete records from the customers table where customer_id is 5.
10. Write a query in SQL to calculate the total sales amount grouped by year from the sales table.

**COURSE TYPE:- Skill Enhancement Course(SEC)**

**Offered by Department of Commerce**

**Semester:- 2**

| | |
|---|---|
| **Name of Subject: Negotiation Skills** | **Maximum Marks: 75**<br>**(TI + TE + PI + PE =15+35+5+20)** |
| **Course ID: 240/COM/SE210** | **Time Allowed: 1 Hour and 30 minutes.** |
| **Credits : 3 ( L–T–P = 2– - – 1 )** | **Skill Enhancement Course** |

**Instructions for Paper Setter:** The question paper shall be divided into two sections. Section 'A' shall comprise seven short answer type questions from the syllabus carrying one mark each, which shall be compulsory. The answer to each question should not normally exceed 50 words. **Section 'B' shall comprise eight questions of 7 marks each (2 questions from each unit**). The students will be required to attempt four questions from section B 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. All questions will carry equal marks.
**Course Outcomes: -** After completing the syllabus**,** students will be able to**:**

**CO1:** Understand the concept and importance of Negotiation skills.
**CO2:** Understand the different models used for effective selling and negotiations.
**CO3:** Acquaint with basic elements of the selling skills.
**CO4:** Build the basic qualities, traits & skills that they need to imbibe to be an effective Business negotiator.

**Course Contents:**

| |
|---|
| **Unit1 :** Negotiation : meaning, definition & significance in business, Types of Negotiation |
| **Unit 2:**Negotiation Framework including Legal aspects, Negotiation process, skills of a good Negotiator |
| **Unit 3:** Negotiation skills required in marketing, effective selling concepts, traits of a successful salesperson, understanding successful selling process & Models (7 Steps Model) |
| **Unit 4:** Negotiation skills regarding HR & Career perspective, Stages of Negotiations ,Negotiate towards a Win-Win Outcome Approach, measures to bring about improvements in Negotiation skills, Salary Negotiations-seeing opportunities for growth, development or transition even in the face of job loss. |

**Practical Exercises:**

The learners are required to:
1. Discuss various Case Studies and group projects.
2. Develop Cross Cultural considerations.
3. Oral presentations by students, readings of news and articles.
4. Participate in Role Plays on Selling.
5. Participate in HR Role play simulations of negotiations.
6. Analysis of current and historical negotiations.

**Suggested Readings:**

1. "Getting to Yes" by Roger Fisher & William Ury –Random House

2. “Organizational Behavior” by Fred Luthans (9th edition)
3. “The Essentials of Negotiation” – Harvard Business School Press
4. “Negotiations Selling” by Sameer Kulkarni – Excel Books
5. “How to Handle Conflict & Confrontation” by Peg Pickering – Natl PressPublications
6. “Negotiation & Selling” by R. K. Srivastava – Excel Books
7. “Understanding the Importance of Negotiation Skills within Organizations” by Dr. RadhikaKapur -Research Gate

**Course Type: - Skill Enhancement Course (SEC)**
**Offered by Department of Commerce**
**Semester: 2**

| | |
|---|---|
| **Name of Subject: E-Banking** | **Maximum Marks: 75**<br>**(TI + TE + PI + PE = 25 + 50 + - + - )** |
| **Course ID: 240/COM/SE211** | **Time Allowed: 2 Hours** |
| **Credits : 3 ( L–T–P = 2–1– - )** | **Skill Enhancement Course** |

**Instructions for Paper Setter:** The question paper shall be divided into two sections. Section 'A' shall comprise five short answer type questions from the syllabus carrying two marks each, which shall be compulsory. The answer to each question should not normally exceed 100 words. **Section 'B' shall comprise eight questions of 10 marks each (2 questions from each unit).** The students will be required to attempt four questions from section B 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. All questions will carry equal marks.

**Course Outcomes: -** After completing the syllabus**,** students will be able to**:**

**CO1:** Understand banking and finance system in India.

**CO2:** Acquaint commercial bank and its product.

**CO3:** Build customer relationship in banking sector.

**CO4:** Well verse with e-banking services and internet Banking.

**Course Contents:**

| |
|---|
| **Unit 1 :** E-Banking: Introduction, Meaning, Definition, Features, use of Information Technology to Banking Company, E-Banking channels: Automatic Teller Machine, Internet Banking, Tele banking, Mobile banking, IFSC Number. |
| **Unit 2:**ATM: Meaning, Characters, Features, Functions, service available from ATM, Cash Deposit, Cash Withdraw, loan enquiry, Last few transactions, Balance, fund transfer, ticket booking, payments, ATM card, Pin Number. |
| **Unit 3:** Internet Banking: Introduction, World Wide Web, Net banking account opening, Username and Password, secrecy of maintaining One Time Password, Net Banking Services, Fund Transfer, Make Payment. |
| **Unit 4:**National Electronic Fund Transfer (NEFT): Introduction, Meaning, Functions, services. Real Time Gross Settlement (RTGS): Introduction, Meaning, Functions, Service infrastructure requirement, RTGS transactions. IT Act: legal status, electronic records Cyber Crime and Law. |

**Suggested Readings:**


1. Meaning with information by H. Jerome Lenter
2. Computer information Technology Global business by Puri and Vidin Puri
3. Fundamentals of data base systems by Jerome Lenter, Pearson
4. An introduction to Information Technology by Dr.Srinivasa Vallabhan,Sultan Chand &Sons
5. Law of Information Technology by D.P.Mittal, Tax Man, E-Markets, Macmillan 2007
6. C.S. Rayudu, E-Business, Himalaya Publishing House.
7. Roger Hunt& John Shelly, Computers and Commonsense.
8. BhushanDewan, E-Commerce.

## Semester II

# Introduction to Artificial Intelligence (240/BACA/SE207)

| L | T | P | L | T | P | Credits | MARKS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (Hrs) | | | Credits | | | | TI | TE | PI | PE | Total |
| - | - | 6 | - | - | 3 | 3 | - | - | 25 | 50 | 75 |

**Course Description:**
This course explores the integration of artificial intelligence in the culinary industry. Students will learn how AI technologies can enhance culinary creativity, improve operational efficiency, and personalize dining experiences. The course includes theoretical knowledge, practical applications, and hands-on as well.

**Course Objectives:**
**The objective of this course is to**
CO1 To Understand the basic principles of AI
CO2 To Learn how to use AI tools in culinary
CO3 To Develop skills to implement AI in restaurants
CO4 To Explore challenges of using AI in culinary arts

**Units (Practical):**
**Unit I: Introduction to Artificial Intelligence in Culinary**
- Trends and Prospects of Artificial Intelligence in Culinary Arts
- Case Study Analysis of Successful AI Implementations in Restaurants
- Methods of Collecting Culinary Data (e.g., customer preferences, ingredient databases)

**Unit II: Prompting in AI**
- Change the Dashboard Experience of ChatGPT
- Switch on Beta Features
- ChatGPT for Quick Learning
- Apply Prompt Engineering Techniques to a Practical, Real-World Example
- Create a Static Web Page Using ChatGPT

**Unit III: Advanced Features of ChatGPT**
- Change the Tone of Writing
- Generate a To-do List
- Share the Chat Thread Links
- Export Data to Mail
- Organize Chat History

**Unit IV: AI in Recipe Development**
- Designing Personalized Meal Plans
- Generating New Recipes based on Ingredient Datasets.
- Collecting and Analysing Data from Online Recipe Sources/ Restaurant Menus, and Customer Reviews

**Suggested Readings:**
- "Artificial Intelligence in Agriculture and Food Production" by Constantin Cranganu

| Introduction to Artificial Intelligence | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO** | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PSO1** | **PSO2** | **PSO3** |
| CO 1 | 2 | - | 1 | 3 | - | - | - | 1 | 1 | - | 2 |
| CO 2 | 2 | - | 1 | 3 | 1 | - | - | 2 | 2 | 1 | 2 |
| CO 3 | 2 | - | 2 | 3 | 1 | - | - | 2 | 2 | 1 | 2 |
| CO 4 | 2 | - | 2 | 3 | - | - | - | 2 | 2 | - | 2 |

## Semester II

### Opera Property Management System (240/BBAHM/SE107)

| L | T | P | L | T | P | Credits | MARKS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (Hrs) | | | Credits | | | | TI | TE | PI | PE | Total |
| - | - | 6 | - | - | 3 | 3 | - | - | 25 | 50 | 75 |

**Course Description:**
This course delves into the basic practical applications of the features and functionalities of the Hospitality Property Management Software. The course will enable students to learn how to leverage this technology to streamline reservations, enhance guest service and drive loyalty. The course will cover the rooms reservations, front desk, cashiering, and room management modules. Throughout the course, emphasis will be placed on practical application and real-world scenarios, allowing students to develop the skills and knowledge necessary to excel in the competitive hospitality industry.

**Course Objectives:**
The objective of this course is to

CO1 To Understand and gain comprehensive knowledge of the importance of property management software in hospitality sectors.
CO2 To Explore how property management software can enhance guest experience.
CO3 To Apply the practical skills to real world scenarios in handling and managing room inventories from the planning phase to the execution phase.
CO4 To Understand the impact of effective property management solutions on increasing staff productivity, improving service quality, and fostering guest loyalty.

**Units (Practical):**

**Unit I: Reservations Module**

- Creating & Updating Profiles – New guests and repeat guests.
- Creating & Updating Reservations - Overbooking and upselling.
- Preferences records – Special requests, notes, and preferences.
- Profile and Reservation - Company profiling, contact information & verification.
- Amendments – Cancellations and confirmations

**Unit II: Front Desk Module**

- Pre-Arrival – Check arrivals for the day and week, house status, room status, housekeeping status, and end of day projections.
- Room Blocking – Preference checks, room types and status & check-in.
- Registration Process – Domestic & Foreign Nationals - Nationality and C-form.
- Updating a reservation and profile post check in, payment information.

**Unit III: Rooms Management Module**

- Rooms - Changing room status, discrepancy report,
- Out of Order and Service – plugging in and removing rooms, impact on inventory.
- Room History, quick keys, detailed availability, occupancy graph
- Planning operations using the rooms management module for the future.

**Unit IV: Cashiering**

- Checkouts – Checking and billing stayovers, due outs & checked outs, information invoice and tax invoice.

- Creating different folios for the same guest, cashier reports and functions.
- Types of charges.
- Allowances and Discounts – passing entries, understanding when to use each entry.

**Suggested Readings:**


- Woods. (2008). Professional Front Office Management. Pearson Education India.
- Bardi, J. A. (2002). Hotel Front Office Management. Wiley.


| Opera Property Management System | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO** | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PSO1** | **PSO2** | **PSO3** | **PSO4** |
| CO1 | 2 | - | - | 3 | - | 3 | - | - | - | - | - | - |
| CO2 | 3 | 1 | - | 3 | - | 3 | 1 | - | 2 | - | - | 1 |
| CO3 | 3 | 3 | 2 | 3 | - | 3 | - | - | - | - | - | 2 |
| CO4 | 3 | 2 | 3 | 3 | 2 | 3 | - | - | 2 | 2 | 1 | 2 |

**Syllabus**

**Semester- 2**

| | |
|---|---|
| Name of Subject: **Business Communication in Tourism** | Maximum Theory Marks:75 (TE+TI+PE+PI=35+15+0+25) |
| Course ID: 240/TTM/SE201 | Time Allowed: 2 Hours |
| Credits 3 (L-T-P = 2+1+0) | **Skill Enhancement Course (SE)** |

**Instructions for paper setter:** Examiner is requested to set **one compulsory and eight other questions, two from each unit.** The compulsory question should be of 07 marks and should cover entire syllabus. Student should attempt four other questions i.e. one from each unit.

**Practical Paper Evaluation**

**Evaluation Mode**: Internal Assessment,

Evaluators: Internal Faculty Members from other departments of same college.

***Note: Faculty members teaching the paper will not conduct the internal assessment.***

**Course Outcomes: -** After completing the course, students will be able:

CO.1: To Understand Communication Types and Processes:
CO.2: To Analyze Communication Barriers and Strategies:
CO3: To Apply Skills in Written and Oral Communication:
CO4: Evaluate Presentation and Interpersonal Skills

**COURSE CONTENTS:**

| **Unit 1:** |
|---|
| **Communication:** Types & Process: Introduction, definitions, Process of communication, types of Communication, upward, downward, horizontal, vertical and diagonal, verbal, nonverbal and oral and written Interpersonal communication – one way/ two way, Mediums of communication, Listening. Role of 7C's for Effective Communication. Barriers to Communication & how to overcome on them. |
| **Unit 2:** |
| **Written Communication:** Business report, business representation, formal letter Drafting effective letter, formats, style of writing. |
| **Unit 3:** |
| **Speeches:** Drafting, a speech, presentation, Personal grooming, Extempore, Introducing yourself.<br>**Etiquettes & manners:** Social, Business, Dining & Travel. |
| **Unit 4:** |
| Presentation skills, Seminars skills role – play interview skills, Interpersonal Skills Dealing with seniors, colleagues, juniors, customers, suppliers, contract workers, owners etc. at work place. |

**Suggested Readings:**


- Bhaskar, W.W.S., AND Prabhu, NS., "English Through Reading", Publisher: McMillan, 1978.
- Business Correspondence and Report Writing" –Sharma, R.C. and Mohan K. Publisher:, Tata McGraw Hill 1994.
- Communications in Tourism & Hospitality – Lynn Van Der Wagen, Publisher: Hospitality Press.
- Business Communication – K.K. Sinha.
- Essentials of Business Communication by Marey Ellen Guffey, Publisher: Thompson Press.
- How to Win Friends and Influence People by Dale Carnegie, Publisher: Pocket Books.
- Basic Business Communication by Lesikar & Flatley, Publisher Tata Mc Graw Hills.


**MAPPING MATRIX OF COURSE:**

**Table: CO's - PO's, and CO's - PSO's Matrix for the Course: Business Communication in Tourism**

| COs | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PSO1 | PSO2 |
|---|---|---|---|---|---|---|---|---|---|
| **CO1** | 3 | 3 | 1 | 3 | 2 | 2 | 3 | 3 | 3 |
| **CO2** | 2 | 3 | 2 | 2 | 1 | 1 | 2 | 3 | 3 |
| **CO3** | 2 | 3 | 1 | 2 | 1 | 1 | 3 | 2 | 3 |
| **CO4** | 3 | 3 | 1 | 2 | 1 | 1 | 3 | 3 | 2 |
| **Average** | 2.50 | 3.00 | 1.25 | 2.25 | 1.25 | 1.25 | 2.75 | 2.75 | 2.75 |

**SEC-2**

| | | | |
|---|---|---|---|
| **Session 2023-2024** | | | |
| **Part-A Introduction** | | | |
| Subject | Economics | | |
| Semester | II | | |
| Name of the Course | **COMPUTER APPLICATION IN ECONOMIC ANALYSIS** | | |
| Course Code | | | |
| Course Type: (CC/MCC/MDC/ CCM/ DSEC/VOC/DSE/PC/AEC/ VAC | SEC | | |
| Course Learning Outcomes (CLO) | 1.This course will provide the students with the knowledgeof fundamentals of computers, word processors, spread sheet, managing data, data analysis and the digital economy<br><br>2. At the end of this course the student is expected to be proficient in computing skills that are necessary for economic world<br><br>3. This course will provide the students with employability skillsfor an academic and corporate career | | |
| Credits | Theory | Practical | Total |
| | 02 | 1 | 03 |
| Contact Hours | 02 | 2 | 03 |
| **Max. Marks: 100**<br>**Internal Assessment Marks: 30**<br>**End Term Exam Marks: 70** | **Time: 3 Hrs** | | |
| **Part-B Contents of the Course** | | | |
| **Instructions for Paper Setters** | | | |
| Instruction for paper setter<br>1. Seven Questions will be set in all and students will be required to attempt 4 questions.<br>2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).<br>3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each). | | | |
| **Unit** | **Topics** | | **Contact Hours** |
| I | Opening, saving and printing documents files, Editing and formatting of documents, inserting page<br>Numbers and footnotes, Table: Auto Format and Properties, Inserting graphs and diagrams<br><br>Networking of Computer: Intranet and Internet, LAN and WAN, Internet Explorer, Search engines,<br><br>Emails, Computer, document and | | |

| | | |
|---|---|---|
| | Internet Security, Antivirus-scanning and updates | |
| II | Introduction to Microsoft Excel: Creation of worksheets; Data entry, formatting, sorting and validation; Importing and exporting of data files, Uses of mathematical, financial and statistical function and what if analysis, Data Analysis: Correlation, Simple and Multiple Regression, One way ANOVA, Creation of diagrams and graphs<br>. | |
| III | Introduction to SPSS: Creation of data files, assigning names and labels to variables, sort cases, import/export of files, Computing variable, Data Analysis: Descriptive statistics, Comparing means, Simple Correlation analysis, ANOVA, Simple Regression Analysis, Preparation of graphs and diagrams | |
| | | |
| **Suggested Evaluation Methods** | | |
| **Internal Assessment:** | | **End Term Examination:** Theory |

| **Part-C Learning Resources** |
|---|
| **Recommended Books/E-Resources/LMS:**<br>**> Goon, A. M, Gupta, M. K, and Dasgupta, B. Fundamentals of Statistics (Volume One), The World Press Private Ltd**<br>**> GOI, Note on Sample Design and Estimation Procedure of NSS 68th Round, National Sample** |
| |

**Gurugram University Gurugram, Haryana (India)**

**Skill Enhancement Course from the department for pool of the Courses in the University**

(These courses are offered by each department for students of other departments/same department and is designed to provide value-based and/or skill-based knowledge and should contain both theory and lab/hands-on/training/field work.)

(As per NEP 2020 w.e.f. session 2024-25)

**Course Title: Geographical data collection Techniques -Semester-2**

Paper Code: **SEC-2 (Theory and Practical Paper),** 240/GEO/SE201

Note for paper setter:

1. Seven Questions will be set in all and students will be required to attempt 4 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 (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

| | | |
|---|---|---|
| Credit: 03 (2+0+2) L+T+P Hrs/Week | Total Marks | 75 Marks |
| Time: 3 Hours (Theory)<br>Time: 4 Hours (Practical ) | End Semester Exam:<br>Internal Assessment (Attendance)* | 35 Marks<br>15 Marks |
| **Note: Theory Exam:** as the instructions mentioned under<br>**Practical Exam:** as the instructions mentioned under<br>Practical Exam Time: 4 Hours | Practical Exam<br>Internal Assessment (Practical)** | 20 Marks<br>05 Marks |

**Learning/Course Objectives:** Understanding about basic technique of data collection. To create awareness about method of data collection and its importance. Acquaintance with nature and significance of information.

**Learning/Course Outcomes:** CO1: To gain knowledge of how different tools helps in data collection .CO-2: To create a better understanding and draw conclusions based on data collected .CO-3: To recognize the ways in which appropriate method affects several facets of information .CO-4: To become acquainted with data collection issues from a geographical perspective. CO-5: Students will be able to understand the data collection concepts which are important for long-term development and growth.

UNIT-I

Types and sources of data: characteristics of primary and secondary data, Types of questionnaires and their formulation, Sample design for collection of socio-economic data, Collection of demographic and socio-economic data from the field.

.UNIT-II

Data Collection & projections, (Semi average method, least square method, Exponential population growth), construction of life Tables, population density and concentration index. Dependency ratio, calculation of human development Index.
(05 Exercise )

UNIT-III

Method of data analysis, Representation of data in individual, discreet and continuous series, measures of Central tendency, (Mean, Median, Mode), measures of dispersion & coefficient of variation. (05 Exercise)

UNIT-IV

Methods of representation of data Pie chart, Age and sex pyramid and types, Trilinear chart, Flow diagram, Choropleth, Proportional circles, divided proportional circles, level of urbanization.
(05 Exercise)

**Note**: (i) Skill Enhancement Course from the department for pool of the Courses in the University is offered by each department for students of other departments/same department and is designed to provide value-based and/or skill-based knowledge and should contain both theory and lab/hands-on/training/field work.

**Theory Exam**

(ii) The Question one of paper is compulsory. Question one of paper will contain Multiple Choice Questions (MCQ)/Objective type/Terms of seven marks (seven MCQ/ Objective type/Terms of one mark each). (iii) The question paper will have four units. Two questions will contain from each unit of the syllabus. Candidates are required to attempt one question from each unit. These questions will be of Seven marks each. *Internal Assessment of 15 marks will be 05 marks of attendance + 10 marks of Practical assignment /file/sessional (Theory Part)

**Practical Exam**

(iii) The question paper Practical part out of unit two, three and four will comprise Exercise Part. (3 Question x 4 Marks= 12 Marks). Each unit of comprising exercise part of question paper will comprise one question from each unit of the syllabus .Candidates (s) are required to attempt three question / exercise from the units. These questions will be of 04 marks each. Candidates will be required to attempt exercise neatly and cleanly on the provided geography sheet.(a) Record file will be of Maximum four Marks.(b)Exercise will be of maximum twelve Marks.(c) Viva Voce will be

of Maximum four Marks. ** Internal Assessment of 05 marks will be based on attendance (Practical Part)

**Recommended Readings:**


- Khan, A.A. (1996). *Text Book of Practical Geography*, Concept, New Delhi.
- Lawrence, GRP.(1968). *Cartographic Methods*, Methuen, London.
- Mishra R.P. and Ramesh A. (1999). *Fundamentals of Cartography*, Concept Publishing Company, New Delhi.
- Monkhouse, F.J. and Wilkinson, H.R. (1994). *Maps and Diagrams*, Methuen, London.
- Robinson, A.H. et.al. (1995) *Elements of Cartography*, John Wiley & Sons, .
- Singh, R.L., (1979). *Elements of Practical Geography*, Kalyani Publisher, New Delhi.
- Singh ,Gopal (1991),*Map Work and Practical Geography*,SBD Publishers, Distributors,4075,Nai Sarak,Delhi
- Sarkar, A.K (1997): Practical Geography-A Systematic Approach, Orient Longman, Calcutta.
- Steers, J.B. (1992) *Map Projections*; University of London Press, London.
- Black James A and D.J. Champion (1976): Methods and Issues in Social Research, New York, John Wiley and Sons, Inc.
- Goode and Hatt, Research Methodology in Social Sciences, Oxford University Press, New Delhi.
- Gomez B and John Paul Jones. 2010. Research Methods in Geography-A Critical Introduction. Wiley Blackwell Publications, Singapore.
- Prasad,H (1992)Research Methods and Techniques in Geography, Rawat Publishers, Jaipur.
- Kundu A. (2005)Measurement of Urban Processes: A Study of Regionalization, Popular Prakashan, Mumbai.
- Mishra, H.N. and Singh V.P.(1998)Research Methodology: Social, Spatial and Policy Dimensions, Rawat Publishers, Jaipur.

**Sem 2**

| | |
|---|---|
| **Subject: Monumental studies -II** | **Maximum Marks: 75**<br>**(TE + TI + PE + PI = 50+25+0+0=75)** |
| **Course Code: SEC -2, 240/HIS/SE 201** | **Time Allowed: 3 Hrs.** |
| **Credits : 3** | **Skill Enhancement Course** |

Note for paper setter:

1. Seven Questions will be set in all and students will be required to attempt 4 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 (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

**Course Outcomes: -** After completing the syllabus, students will be able to:

1. The student will be able to identify stylistic classifications, also understand the progress of art through time and space.

2. This study enables the student to understand the meaning, use, purposes and worth of art evidences from medieval times, especially the sculptures and paintings.

3. The learner will be able to identify the regional styles of art, temple structures of different periods and regions

**COURSE CONTENTS:**

**Unit 1**:

Temples and Sculptures of South India: Early Cālukyan -Temples of Aihole and Badami; Kailāśanātha Temple of Ellora; Pallava Rathas and Structural Temples of Mahabalipuram and Kanchipuram ; Chola Temples with special reference to Thanjavur 9. Hoysala Temples (Halebid). Temples and Sculptures of Eastern India - Temples of Bhubaneswar, Puri and Konark; Pāla Sculptures. Temples of Western India - Sun Temple of Modhera ; Abu Temples : Vimalavasahī and Lūn avasahī .

**Unit2:**

A brief history of Archaeological Monuments: Charminar, Humayun's Tomb, Delhi, Taj Mahal, Qutub Minar, New, Fatehpur Sikri, Golgumbaz, Red Fort, Agra fort, Jama Masjid, Quwwat-ul-Islam Mosque, Alai Darwaza , Iron Pillar, Hawa Mahal, Amber Fort.

Unit 3: Field Practice: Survey of Monuments in Delhi and Delhi NCR (Gurugram and Nuh District). Field Survey report.

***Suggested Readings:***


*Agrawala, P.K., Guptakālīna Kalā evam Vāstu (Hindi), Varanasi, 1994.*
*Bajpai, K.D., Bhāratīya Vāstukalā kā Itihāsa (Hindi), Lucknow, 1972.*
*Brown, P., Indian Architecture (Buddhist and Hindu Periods) (relevant portions), Bombay, 1971.*
*Coomaraswamy, A.K., History of Indian and Indonesian Art, London, 1927.*
*Gupta, P.L., Bhāratīya Sthāpatya (Hindi), Varanasi, 1970. S*
*Jauhari, M., Cola aura Unakī Kalā, Varanasi, 1968. Krishna Dev, Temples of North India, New Delhi, 1969.*
*Majumdar, R.C. and A.D. Pusalker (eds.), The History and Culture of the Indian People, Vols. III and V (relevant portions), Bombay, 1988, 1989.*
*Monica Juneja, Architecture In Medieval India ,permanent black*
*Saraswati, S. K., A Survey of Indian Sculpture, Calcutta, 1956 (Reprint edn.). Srinivasan, K. R., Temples of South India, New Delhi, 1972.*

**Skill Enhancement Courses**

| **Part A - Introduction** | | | |
|---|---|---|---|
| **Semester** | **II** | | |
| **Name of the Course (SEC-2)** | **Techniques of Resist Dyeing and Printing** | | |
| **Course Learning Outcomes (CLO):**<br>After completing this course, the learner will be able to:<br>1. Develop skills and undertake projects batik dyeing, tie and dye and block printing.<br>2. Develop marketable articles value added with batik dyeing, tie and dye and block printing.<br>3. Describe the basics of dyeing, printing and finishing.<br>4. Examine the knowledge of auxiliaries and chemicals used for dyeing and printing.<br>5. Explain the relation between the dyes, pigments and fabrics.<br>6. Recommend the finishing for textiles after dyeing and printing. | | | |
| **Credits** | **Theory** | **Practical** | **Total** |
| | 2 | 1 | 3 |
| **Contact Hours** | 2 | 2 | 4 |
| **Max. Marks:75**<br>**(35TE+ 15TI + 05 PI + 20PE)** | **Time: 2h (Theory), 2h (Practical)** | | |

**Part B- Contents of the Course**

**Instructions for Paper-Setter**

Nine questions will be set in all. Question No.1 comprising of objective/short answer type questions from the entire syllabus, will be compulsory. The remaining eight questions will be set taking two questions from each unit. The candidates will be required to attempt Q.No.1 & four others selecting one question from each unit. All questions carry equal marks.

| | **CONTACT HOURS** |
|---|---|
| **UNIT I Theoretical introduction to Resist Dyeing and Printing**<br>1. Brief Introduction to Textile fibers with their Classification and properties.<br>2. Definition of Motifs, Designs and Pattern, Types of motifs (i)Naturalistic ii) Geometrical (iii) Stylized (iv) Abstract<br>3. Different types of Dyes and their affinity to different fibres<br>4. Types of Resist Printing.<br>5. Tools and equipment for Batik, Tie & Dye and Block Printing, safety precautions. | **7** |
| **UNIT II Resist Dyeing: Batik Dyeing**<br>1. Techniques of Batik Dyeing<br>2. Batik Dyeing traditional centres in India.<br>3. Preparation and process for Batik Printing.<br>4. Exercising precautions | **7** |
| **UNIT III Resist Dyeing: Tie & Dye**<br>1. Meaning of Tie and Dye; Tie and dye traditional centres in India.<br>2. Preparation and process for Tie and Dye, exercising precautions.<br>3. Treatment of fabric after tie and dye.<br>4. Tie and Dye with different tying materials and techniques. | **7** |
| **UNIT IV Block Printing**<br>1. Meaning of Block printing, different dyes for Block Printing. | **9** |

| | |
|---|---|
| 2. Types of Block Printing.<br>3. Types and Care of Blocks.<br>4. Making designs for Block Printing; Understanding placements.<br>5. Preparation and process for Block printing.<br>6. Treatment of fabric after printing.<br>7. Safety precautions. | |
| **Practical (30 Hours)**<br>1. Prepare samples of block printing, tie and dye and batik.<br>2. Demonstrate the use of different tools and equipment used for block printing<br>3. Demonstrating different tying techniques for tie and dye.<br>4. Preparing a range of household and apparel articles of cotton fabric using these techniques.<br>5. Dyeing of samples in single colour, two colours and multi colours.<br>6. Printing in single colour, two colours and multi colours.<br>7. Different Layouts-Central, Corner, Border and All over. | |
| **Part C-Learning Resources**<br>1. Simon-Alexander, S. (2013). Tie-Dye: Dye It, Wear It, Share It. Potter craft.<br>2. Vejar, K. (2015). The Modern Natural Dyer: A Comprehensive Guide to Dyeing Silk, Wool, Linen, and Cotton at Home. STC craft/ A Melanie Falick Book.<br>3. Wada, Y. I., Rice, M. K., & Barton, J. (2012). Shibori: The Inventive Art of Japanese Shaped Resist Dyeing. Kodansha America, Inc.<br>4. Recker, K. (2019). True Colors: World Masters of Natural Dyes and Pigments. Thrums Books. 5. Erickson, J. D. (1974). Block printing on textiles. Watson-Guptill Publications.<br>5. Edwards, E. (2016). Block printed textiles of India: imprints of culture. Niyogi Books.<br>6. McLaughlin, C. (2014). A Garden to Dye For: How to Use Plants from the Garden to Create Natural Colors for Fabrics and Fibers. St. Lynn's Press.<br>7. Duerr, S. (2016). Natural Color: Vibrant Plant Dye Projects for Your Home and Wardrobe. Watson-Guptill publications Inc, U.S.<br>8. Callahan, G. (2010). Hand Dyeing Yarn and Fleece: Custom-Color Your Favorite Fibers with Dip-Dyeing, Hand-Painting, Tie- Dyeing, and Other Creative Techniques. Storey publishing LLC.<br>9. Lo, F. (2017). Dyeing to Spin & Knit: Techniques & Tips to Make Custom Hand-Dyed Yarns. Interweave.<br>10. Chavan, R.B. (1979). Textile Printing (Book of Papers) Department of Textile Technology, IIT New Delhi. | |

**Note: External Practical (PE) will be conducted on Institutional Level by any of the teacher not teaching that paper. Teacher may be from same Department or from any other Department of the concerned institute.**

| Session: 2024-25 | |
|---|---|
| **Part A – Introduction** | |
| **Subject** | Mathematics |
| **Semester** | II |
| **Name of the Course** | Numerical Ability Enhancement Skills |
| **Course Code** | SEC-2 |
| **Course ID** | 240/MAT/SE201 |
| **Course Type: (CC/ MIC/ MDC/VOC/ AEC/ VAC/SEC)** | SEC |
| **Pre-requisite for the course (if any)** | NA |
| **Course Learning Outcomes(CLOs)** | After completing this course, the learner will be able to:<br>1. Understand real number system, fundamental arithmetical operations, use of BODMAS.<br>2. Attain the knowledge of ratio, proportion, AP, GP and HP series.<br>3. Evaluate percentage, profit and loss and average speed problems.<br>4. Understand logarithms, area and volumes of certain figures. |

| **Credits** | **Theory** | **Practical** | **Total** |
|---|---|---|---|
| | 2 | 1 | 3 |
| **Contact Hours** | 2 | 2 | 4 |
| **Internal Assessment Marks** | 15 | 5 | 20 |
| **End Term Examination Marks** | 35 | 20 | 55 |

| Examination Time | 3 Hours | 3 Hours | Max. Marks: 75 |
|---|---|---|---|

## Part B- Contents of the Course

**Instructions for Paper- Setter: 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 contain 7 parts covering entire syllabus. The examinee will be required to attempt 5 questions, selecting one question from each unit and the compulsory question.**

| Unit | Topics | Contact Hours |
|---|---|---|
| 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. | 8 |
| 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. | 8 |
| III | Percentage, Profit & Loss, Allegation or mixture, Average, Average speed problems, Calendar. | 8 |
| IV | Logarithms, Area of Quadrilaterals (Parallelogram, Square, Rectangle, Rhombus, Trapezium),Volume and surface area of Cube, Cuboid, Cylinder, Cone, Sphere and Hemisphere. | 8 |

## Practical

30

**The examiner will set 4 questions at the time of practical examination by taking Course Learning Outcomes (CLOs) into consideration. The examinee will be required to solve 2 questions. The evaluation will be done on the basis of practical record, viva-voce, written examination.**

**Problem Solving- Questions related to the following problems will be solved and their record will be maintained in the Practical Notebook:**

1. To solve problems related to the simplification of expression involving fractions having use of BODMAS.
2. Practical problems of salary increment, population increase etc. and apply formula for $n^{th}$ term and sum of n terms based on A.P. and G.P.
3. Working out average speed during a trip from a destination to another destination assuming non uniform speed taking at least three variation in magnitude of speed.
4. Practical problems related to ratio and proportion.
5. Practical problems related to two digit numbers and reversal of digits at unit and ten's places.
6. Draw a chart for quadrilateral (Parallelogram, Square, Rectangle, Rhombus, Trapezium) mentioning their properties, surface area and perimeter.

7. Draw 3-D figures Cuboid, Cube, Cylinder, Cone, Sphere and Hemisphere and problems solving for the surface area and volume of these figures.
8. Derive a formula to determine average speed of a person value of an item after 'n' years if it depreciates at the rate of 'r %' per annum , when its person travelling from a destination 'A' to another destination 'B' with a speed of x km/h and returning back with a speed of y km/h.
9. 'M' offers a discount of 25% on a book to 'A' and for the same book, he offers 'B' a discount of 10% and again an additional discount of 15%. Analyze, which has to pay more for the same book.
10. Problem of determining single discount in percent equivalent to successive discount of x %, y% and z %.
11. Problem of determining loss percent when a person sells two similar items, one at a gain of x % and the other at a loss of x %.
12. To solve problem related to the value 'P' is given.
13. Problem of determining the value of an item 'n' years ago if its depreciation rate 'r %' per annum and present value 'P' is given.
14. Problem of percentage reduction in consumption of a commodity if its price increases 'r %' so as not to increase the expenditure.
15. Problem to find the ratio in which two or more ingredients at the given price must be mixed to produce a mixture of a desired price.

## Suggested Evaluation Methods

**Internal Assessment:**

➢ **Theory 15**

- Class Participation: 4
- Seminar/presentation/assignment/quiz/class test etc.: 4
- Mid-Term Exam: 7

➢ **Practicum 5**

- Seminar/Demonstration/Viva-voce/Lab records etc.: 5

**End Term Examination:**

➢ **Theory 35**
Written Examination

➢ **Practicum 20**
Lab record, viva- voce, write up.

## Part C-Learning Resources

**Recommended Books:**


1. R. S. Aggarwal (2022). *Quantitative Aptitude.* S Chand & Company Limited, New Delhi.
2. A. Guha (2020). *Quantitative Aptitude* ( 7th 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

# Semester-II

## Skill Enhancement Courses

## Course ID - 240/PHYP/SE201
## BASICS OF PROGRAMMING

**Max. Marks: 35** **Credit 2 (30Hrs)**

**Internal Assessment: 15** **Time: 3 hrs**

***Note:*** *The paper setter is to set* ***Nine*** *questions. Question no. 1 (compulsory based on the entire syllabus) will consist of short answer type questions. The rest of the* ***eight*** *questions will be set uniformly, with two questions from each unit selected. A student is required to attempt* ***five*** *questions, selecting one from each unit along with compulsory question no 1. The question paper shall contain 20 % numerical problems in the relevant papers.*

| | |
|---|---|
| **Course Objective:** Grasping fundamental programming concepts and Python syntax involves understanding how to declare and use variables, recognize different data types (integers, floats, strings, and booleans), and perform basic operations such as arithmetic, string concatenation, and logical operations. This foundation enables beginners to write and understand basic Python code effectively. | **Course Outcome:** Upon successful completion of this course, students will be able to understand and utilize the Python interpreter, execute basic print statements, perform variable assignments, develop programs using Python's control flow mechanisms, including loops and conditional statements, implement and use functions, lists, strings, dictionaries, and other data structures in Python to solve computational problems. |

### Unit-I

**Basics of Python:** The Python Interpreter; The print statement; Variables and Assignments; Strings; Comments and Docstrings; Debugging; Input; Data types and Data conversion.

### Unit-II

**Operations:** Lists and List Operations; Comparison Operations; Logical Operations; Practice Programs: Mathematical operations, Convert Celsius to Fahrenheit, Solve Quadratic Equation.

### Unit-III

**Control Flow:** Sequencing, Iteration and Selection; For and While Loops; Conditional Statements: if, if-else, elif; Break and Continue Statements; Ranges; Practice Programs: Simple Harmonic Motion, Motion of a Ball Under Gravity, Projectile Motion.

### Unit-IV

**Functions:** Built-in Functions, List and String Functions, User-defined function, Dictionaries and Dictionary Functions, Tuples, Sets, List Comprehensions; Practice Programs: Make a Simple Calculator, Ohm's Law and Power Calculation.

**References:**


1. Python Crash Course by Eric Matthes (No Starch Press, 2nd ed., 2019).
2. Python Programming: An Introduction to Computer Science by John Zelle (Franklin, Beedle & Associates Inc., 2003).

3. Computation Physics: Problem Solving with Python, 3rd Edition by Rubin H. Landau, Manuel J Páez, Cristian C. Bordeianu (Wiley VCH, 2015).
4. Python documentation available at the Python web page (https://docs.python.org/3/).

## BASICS OF PROGRAMMING LAB

**Marks (External) : 20** **Credits : 1(30Hrs)**
**Marks (Internal Assessment) : 05** **Time : 3 Hrs**

1. Each student should perform at least five experiments.
2. The students are required to calculate the error involved in a particular experiment.
3. List of experiments may vary.

**List of Experiments:**

1. Basics of Python: Syntax and Semantics, Variables and Assignments, Data types, Lists, Comparison and Logical Operation.

2. Control Structures: Conditional Statements and Loops.

3. Functions: Built-in Functions, Defining a function, Dictionary, Tuples, Sets, List Comprehensions.

4. Program to calculate the factorial of a number.

5. Program to generate Fibonacci series up to n terms.

6. Program for performing basic arithmetic operations (addition, subtraction, multiplication, division) based on user input.

7. Program to convert Celsius to Fahrenheit.

8. Programs to add and multiply two matrices.

9. Program to count the number of lines, words, and characters in a file

**References:**

1. Python Crash Course by Eric Matthes (No Starch Press, 2nd ed., 2019).
2. Python Programming: An Introduction to Computer Science by John Zelle (Franklin, Beedle & Associates Inc., 2003).

3. Computation Physics: Problem Solving with Python, 3rd Edition by Rubin H. Landau, Manuel J Páez, Cristian C. Bordeianu (Wiley VCH, 2015).
4. Python documentation available at the Python web page (https://docs.python.org/3/).

**Semester-2**

**SEC-2:- Computer Application in Data Analysis**
**Credit-3**
**240/SOC/SE201**

**Maximum Marks –50**
**Theory – 35**
**Internal Assessment – 15**
**Time – 3 hours**

The students will be required to attempt four questions in all. Question No. I will be compulsory comprising of 4 short answer type questions of 2 marks each and will cover the entire syllabus 4X 2 = 8 marks. In addition to it, Question Nos. II to VII will consist of long answer (essay type) questions, two Questions from each Unit with internal choice carrying 14 marks each i.e. 3 X 14 = 42 marks thus making it the total weight age to 50 marks .Three questions to be attempted. One from each unit.

**Course Outcomes:**

- This paper aims at introducing computer , its classification and functions.
- Students will get an exposure in analysis of data
- Students will be able to understand use of statistics in social research.

**Unit – I**

Introduction to Computers: History of Computer; Basic Applications of Computers in various fields; Functional components of Computers; Classification of Computers; Strengths and Weaknesses of Computers; Computer Virus.

**Unit-II**

Analysis of Data: Classification and Tabulation, Frequency Distribution; Graphic Presentation of Data, Chart, Histograms and Graphs

**Unit – III**

Statistics in Social Research: Measures of Central Tendency: Mean Median and Mode; Use of Computer in Data Analysis

**Readings:**

Ahuja, Ram (2001), Research Methods, Delhi:Rawat Publications.

Bailey, Kenneth D. (1982), Method of Social Research, New York: The Free Press, Second Edition.

Blalock, Hubert M. (1979), Social Statistics. New York: Tata Mc-Graw-Hill.

Champion, Dean. J. (1981), Basic Statistics for Social Research New York: Macmillan Publishing.

Goode, W.J. and P.K. Hatt, (1952), Methods in Social Research, New York: McGraw International Students Edition.

Gupta, S.P. (2002). Statistical Methods, New Delhi:Sultan Chand and Sons Publication.

Kumar, Ranjit (2006), Research Methodology : A Step-by-step Guide for beginners, Australia, Pearson Education.

Moser, S.C. and G. Kalton (1971), Survey Methods in Social Investigation, London: Heinmann.

Nachmias, David & Chava Nachmias (1981), Research Methods in Social Sciences, New York, St. Martin's Press.

Seltiz, Claire et al (1959), Research Methods in Social Relation, New York:Henry Holt and Co.

Sexena, Sanjay(1998), A First Course in Computer, New Delhi, Vikas Publishing House.

Sharma, Vaishali(2012), The Essentials of information Technology, New Delhi, Dhanpat Rai Publishing Co. Pvt. Ltd.

Thakur, Devender (2003), Research Methodology in Social Science, New Delhi: Deep and Deep Publications Pvt. Ltd.

Young, P.V. (1988), Scientific Social Surveys and Research, New Delhi Prentice Hall.

| SEC-SKILL ENHANCEMENT COURSE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ZOOLOGY: SEMESTER-2 | | | | | | | | |
| **Course Type** | **Course Code** | **Name of the Course** | **Credit** | **Contact Hours/ Week** | **Internal Assessment marks** | **End Term Marks** | **Max. Marks** | **Exam Duration** |
| | | **Taxidermy** | **1** | **2** | **5** | **20** | **25** | **2hrs.** |
| | | **Practical** | **2** | **4** | **15** | **35** | **50** | **4hrs.** |

Level of the course: NA

Pre-requisite for the course(if any):NA

**Course Learning Outcomes (CLO):**

1. Students will be able to learn about the materiality of the taxidermy animal with in the museum context
2. Learners will be able to develop aknowledge and understanding of how to sustain a line of enquiry in a series of related art works
3. This Practice will be effective in the uses of a range drawing and in development studies which consider a creative response to the taxidermy animal.
4. Learners will be able for editing of visual ideas derived from research and study of the taxidermy animal.
5. Students will get practical exposure of Taxidermy procedure

**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. 1and four more questions selecting one question from each unit.

| UNIT | TOPICS | CONTACT HOURS |
|---|---|---|
| **I** | General introduction to Taxidermy; Past and present scenario of Taxidermy; Types of Taxidermy for different animals; Applications of taxidermy | **8** |
| **II** | Layout of Taxidermy- Techniques and Materials used for Skinning, Cleaning and Preservation of dead animals; Keeping the record of dead animal-age, sex, Infestation of pests | **8** |
| **III** | Methods of Taxidermy in Fishes, Snakes and Birds ; Instruments used in Taxidermy; Maceration; Chemical treatments and procedure of Tanning | **7** |
| **IV** | Economic importance of Taxidermy; Role of Taxidermy in conservation and education; Factors affecting Taxidermy; Ethical issues; Pros and cons of Taxidermy | **7** |
| **V** **Practical** | 1. Visit to the museum;<br>2. Identification of animals in Museum;<br>3. Prepare small models of animals;<br>4. To study the best and easiest method of Taxidermy of Birds;<br>5. Procedure of Taxidermy in mammals; Enlist the different types of chemicals used for Taxidermy;<br>6. Enlist the different types of instruments used for taxidermy | **30** |

**Learning Resources**

1. Taxidermy by Alexis Turner. Rizzoli.
2. Taxidermy by Leon Pray.
3. Barber'sManual:A textbook on taxidermy by T.J.McConnaughay
4. Home Book of taxidermy and tanning by Gerold. J Grantz.Stackpole Books,1985.

**Housekeeping Operations-II**
**Course ID - 240/HM/SE207**

| L | T | P | Credits | TI | TE | PI | PE | Time Allowed |
|---|---|---|---|---|---|---|---|---|
| 2 | - | 2 | 3 | 15 | 35 | 5 | 20 | __ Hours |

**Type of Course: - Skill Enhancement Course**

| Core Course (CC) | Minor Course (MIC) including Vocational Courses (VOC) | Multidisciplinary Course (MDC) | Ability Enhancement Course (AEC) | Skill Enhancement Courses (SEC) | Value Addition Courses (VAC) | Internship |
|---|---|---|---|---|---|---|
| | | | | √ | | |

**Introduction to the Course**:
The course aims to provide basic knowledge and understanding of housekeeping operations in a hotel. It equips learners with the knowledge of the various duties and responsibilities and areas within the department and the hotel that come under the purview of a housekeeper's responsibilities. As cleanliness sets a first impression for quality and demonstrates the standards of the hospitality establishment, particular emphasis is put on making learners competent in a range of housekeeping functions.

**Course Outcome: -** After completing the course learners will be able to:
CO1. Recognize the purpose, role and areas of responsibility of the housekeeping department in a hotel unit.
CO2. Explain the importance of cleanliness and hygiene and identify the guest room layouts, status codes, and the standard contents of a guest room.
CO3. Practice the process of cleaning different types of guest rooms, selection and usage of diverse cleaning equipment.
CO4. Demonstrate the ability to clean different hard surfaces.

**Detailed Syllabus:**

**Unit-I**
The housekeeping day, role of night supervisor and night GRA; area inventory list, frequency schedule, performance standard, work schedule; cleaning guest rooms and bathrooms, standards of cleaning, procedures for turn-down service, second service and closing down after cleaning; meaning of public area and list of such areas in the hotel; daily, weekly and periodic cleaning tasks; cleaning process for various public areas; science of cleaning and SOPs followed while cleaning.

**Unit-II**
Planning, layout and activities carried out in linen and uniform room, linen exchange procedure for guest rooms and F & B areas; linen par stock, importance and various aspects of linen control; uniform - uniform designing for hotel staff, uniform issuing and exchanging procedure, advantages of staff uniform, trends in hotel uniforms and uniform management system.

**Unit-III**
Types of laundries, planning and layout of a non-premises laundry, essential laundry equipment, aids and materials; laundry process & handling of guest laundry; contracts and outsourcing - considerations, types, services offered, guidelines for hiring contractors and drawing up contract specifications, advantages and disadvantages, stain removal process.

**Unit-IV**

Importance of flower arrangement; basic ingredients, common flowers and foliage species used in designing of flower arrangements; principles of 'Ikebana'; the importance of horticulture and its essential components; types of indoor plants, landscaping and bonsai in hotel property.

**TEXTBOOK**

- Raghubalan, G. and Raghubalan, S., (2015) Hotel housekeeping: Operations and Management, Oxford University Press, New Delhi

**OTHER RECOMMENDED TEXTS**

- Andrews, S., (2008) Hotel Housekeeping Operations and Management, McGraw Hill Education, New Delhi
- Aggarwal, D. K, (2006) Housekeeping management, Aman Publications, New Delhi
- Jones, T.J.A, (2005) Professional Management of Housekeeping Operations (4th edn), John Wiley, New Jersey
- Negi, D.S. and Verma, S.M., (2020) Fundamentals of Hotel Housekeeping: Operations & Management, Bharti Publications, New Delhi

**Final Assessment (FA)**

| | |
|---|---|
| Theory Internal **(TI)** | **15%** |
| Theory External **(TE)** | **35%** |
| Practical Internal **(PI)** | **5%** |
| Practical External (**PE)** | **20%** |
| **Final Assessment (FA) = (TI+TE+PI+PE)** | **100%** |

**Theory Internal (TI):** The **(TI)** will be done through in-class tests/ coursework/presentations/journals or assignments.
**Theory External (TE):** The **(TE)** will be done through the end-term theory examination.
**Practical Internal (PI)**: The **(PI)** will be done through in-class continuous assessment.

**The question paper pattern** for the end-term examination will be **35 Marks** and will follow the following pattern:

| | | |
|---|---|---|
| **Question 1** | Questions No. One (1) will have five (5) MCQs (All Compulsory). | **5*1=5 marks** |
| **Question 2** | Questions No. Two (2) will have six (6) brief answer questions/ options.<br>(The learner has to answer five (5) out of the six (6). | **5*2=10 marks** |
| **Question 3** | Question No. Three (3) will have three (3) descriptive questions/ options.<br>(The learner has to answer two (2) out of the three (3). | **2*5= 10 marks** |
| **Question 4** | Question No. Four (4) will have Two (2) descriptive questions/ options.<br>(The learner can answer one (1) out of the Two (2). | **1*10=10 marks** |
| | **Total Marks** | **35 marks** |

**Mapping Matrix of Course**

**Table 1: CO-PO Matrix for the Course**

| **COURSE OUTCOMES** | **PO1** | **PO2** | **PO3** | **PO4** |
|---|---|---|---|---|
| **CO1** | 2 | 3 | 2 | 2 |
| **CO2** | 3 | 3 | 2 | 2 |

| | | | | |
|---|---|---|---|---|
| **CO3** | 3 | 2 | 2 | 2 |
| **CO4** | 2 | 2 | 2 | 2 |
| **Average** | 2.5 | 2.5 | 2 | 2 |

**Table 2: CO-PSO Matrix for the Course**

| CO | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 2 | 3 | 2 | 2 |
| **CO2** | 3 | 3 | 2 | 2 |
| **CO3** | 3 | 2 | 2 | 2 |
| **CO4** | 2 | 2 | 2 | 2 |
| **Average** | 2.5 | 2.5 | 2 | 2 |

**Housekeeping Operations-II**
**Course ID - 240/HM/SEC207**

| L | T | P | Credits | TI | TE | PI | PE | Time Allowed |
|---|---|---|---|---|---|---|---|---|
| 2 | - | 2 | 3 | 15 | 35 | 5 | 20 | __ Hours |

**Type of Course: - Skill Enhancement Course**

| Core Course (CC) | Minor Course (MIC) including Vocational Courses (VOC) | Multidisciplinary Course (MDC) | Ability Enhancement Course (AEC) | Skill Enhancement Courses (SEC) | Value Addition Courses (VAC) | Internship |
|---|---|---|---|---|---|---|
| | | | | √ | | |

**Introduction to the Course**:
The course aims to provide basic knowledge and understanding of housekeeping operations in a hotel. It equips learners with the knowledge of the various duties and responsibilities and areas within the department and the hotel that come under the purview of a housekeeper's responsibilities. As cleanliness sets a first impression for quality and demonstrates the standards of the hospitality establishment, particular emphasis is put on making learners competent in a range of housekeeping functions.

**Course Outcome: -** After completing the course learners will be able to:
CO1. Recognize the purpose, role and areas of responsibility of the housekeeping department in a hotel unit.
CO2. Explain the importance of cleanliness and hygiene and identify the guest room layouts, status codes, and the standard contents of a guest room.
CO3. Practice the process of cleaning different types of guest rooms, selection and usage of diverse cleaning equipment.
CO4. Demonstrate the ability to clean different hard surfaces.

**Detailed Syllabus:**

**Unit-I**
The housekeeping day, role of night supervisor and night GRA; area inventory list, frequency schedule, performance standard, work schedule; cleaning guest rooms and bathrooms, standards of cleaning, procedures for turn-down service, second service and closing down after cleaning; meaning of public area and list of such areas in the hotel; daily, weekly and periodic cleaning tasks; cleaning process for various public areas; science of cleaning and SOPs followed while cleaning.

**Unit-II**
Planning, layout and activities carried out in linen and uniform room, linen exchange procedure for guest rooms and F & B areas; linen par stock, importance and various aspects of linen control; uniform - uniform designing for hotel staff, uniform issuing and exchanging procedure, advantages of staff uniform, trends in hotel uniforms and uniform management system.

**Unit-III**

Types of laundries, planning and layout of a non-premises laundry, essential laundry equipment, aids and materials; laundry process & handling of guest laundry; contracts and outsourcing - considerations, types, services offered, guidelines for hiring contractors and drawing up contract specifications, advantages and disadvantages, stain removal process.

**Unit-IV**

Importance of flower arrangement; basic ingredients, common flowers and foliage species used in designing of flower arrangements; principles of 'Ikebana'; the importance of horticulture and its essential components; types of indoor plants, landscaping and bonsai in hotel property.

**TEXTBOOK**

- Raghubalan, G. and Raghubalan, S., (2015) Hotel housekeeping: Operations and Management, Oxford University Press, New Delhi

**OTHER RECOMMENDED TEXTS**

- Andrews, S., (2008) Hotel Housekeeping Operations and Management, McGraw Hill Education, New Delhi
- Aggarwal, D. K, (2006) Housekeeping management, Aman Publications, New Delhi
- Jones, T.J.A, (2005) Professional Management of Housekeeping Operations (4th edn), John Wiley, New Jersey
- Negi, D.S. and Verma, S.M., (2020) Fundamentals of Hotel Housekeeping: Operations & Management, Bharti Publications, New Delhi

**Final Assessment (FA)**

| | |
|---|---|
| Theory Internal **(TI)** | **15%** |
| Theory External **(TE)** | **35%** |
| Practical Internal **(PI)** | **5%** |
| Practical External (**PE)** | **20%** |
| **Final Assessment (FA) = (TI+TE+PI+PE)** | **75%** |

**Theory Internal (TI):** The **(TI)** will be done through in-class tests/ coursework/presentations/journals or assignments.
**Theory External (TE):** The **(TE)** will be done through the end-term theory examination.
**Practical Internal (PI)**: The **(PI)** will be done through in-class continuous assessment.

**The question paper pattern** for the end-term examination will be **35 Marks** and will follow the following pattern:

| | | |
|---|---|---|
| **Question 1** | Questions No. One (1) will have five (5) MCQs (All Compulsory). | **5*1=5 marks** |
| **Question 2** | Questions No. Two (2) will have six (6) brief answer questions/ options.<br>(The learner has to answer five (5) out of the six (6). | **5*2=10 marks** |
| **Question 3** | Question No. Three (3) will have three (3) descriptive questions/ options.<br>(The learner has to answer two (2) out of the three (3). | **2*5= 10 marks** |
| **Question 4** | Question No. Four (4) will have Two (2) descriptive questions/ options.<br>(The learner can answer one (1) out of the Two (2). | **1*10=10 marks** |
| | **Total Marks** | **35 marks** |

**Mapping Matrix of Course**

**Table 1: CO-PO Matrix for the Course**

| COURSE OUTCOMES | PO1 | PO2 | PO3 | PO4 |
|---|---|---|---|---|
| CO1 | 2 | 3 | 2 | 2 |
| CO2 | 3 | 3 | 2 | 2 |
| CO3 | 3 | 2 | 2 | 2 |
| CO4 | 2 | 2 | 2 | 2 |
| Average | 2.5 | 2.5 | 2 | 2 |

**Table 2: CO-PSO Matrix for the Course**

| CO | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| CO1 | 2 | 3 | 2 | 2 |
| CO2 | 3 | 3 | 2 | 2 |
| CO3 | 3 | 2 | 2 | 2 |
| CO4 | 2 | 2 | 2 | 2 |
| Average | 2.5 | 2.5 | 2 | 2 |

**Environmental Studies**
**Course ID - 240/HM/VAC208**

| L | T | P | Credits | TI | TE | PI | PE | Time Allowed |
|---|---|---|---|---|---|---|---|---|
| 2 | - | - | 2 | 15 | 35 | - | - | __ Hours |

**Type of Course:- Value Addition Course**

| Core Course (CC) | Minor Course (MIC) including Vocational Courses (VOC) | Multidisciplinary Course (MDC) | Ability Enhancement Course (AEC) | Skill Enhancement Courses (SEC) | Value Addition Courses (VAC) | Internship |
|---|---|---|---|---|---|---|
| | | | | | √ | |

**Introduction to the Course**:

This course explores the concepts, principles, and practices of environmental management within the hospitality industry context. It explores the interconnections between environmental degradation, natural hazards, and human activities, emphasizing sustainable practices and resilience-building measures. Students will relate the environmental impacts of hospitality operations, strategies for sustainable practices, and regulatory frameworks which would sensitize them about the value of resources and aptly apply the learnings in the industry.

**Slow Food & Gastronomic Practices**
**Course ID - 240/ICA/SE207**

| L | T | P | Credits | TI | TE | PI | PE | Time Allowed |
|---|---|---|---|---|---|---|---|---|
| 2 | - | 2 | 3 | 15 | 35 | 5 | 20 | __ Hours |

**Type of Course: - Skill Enhancement Courses**

| Core Course (CC) | Minor Course (MIC including Vocational Courses (VOC) | Multidisciplinary Course (MDC) | Ability Enhancement Course (AEC) | Skill Enhancement Courses (SEC) | Value Addition Courses (VAC) | Internship | Research Project / Dissertation |
|---|---|---|---|---|---|---|---|
| | | | | √ | | | |

**Introduction to the Course**:

**Introduction to the Course**:

The module aims to provide theoretical and analytical idea about Gastronomy and Slow food. It encompasses various aspects of food, including its taste, appearance, and cultural significance. Gastronomy combines culinary techniques, creativity, and knowledge of ingredients to create unique and memorable dining experiences, Slow food on the other hand is a term in Gastronomy that we will focus on to make sure the students understand the various Sustainable practises that are required to produce equitable food system by celebrating local food traditions, supporting small-scale producers, and encouraging individuals to make conscious and responsible food choices.

**Course Outcome: -** After completing the course learners will be able to:
CO1. Understand the significance of effective planning and utilization of natural resources within the context of the Farming, Fishing and Composting.
CO2. Understand, analyze and critically evaluate: The practices that are essential for the production of Slow food
CO3. Learn and implement the skill required to analyse the Bourdieu's Stance.
CO4. Explain the various factors that influence the Gastronomical practices for the Production of Food.

**Detailed Syllabus:**

**Unit-I**
**Theory** - Overview of the concept of gastronomy, Identify some of the main ideologies around the development of the taste. Discuss the factors that influence the construction of taste. Understand the concept of industrialization of food. Discuss the emergence and need for industrialization and commercialization.
**Unit-II**

**Theory** - Recognize the global trends in gastronomic tourism. Understand and analyse the emergence of gastronomic tourism. Define and understand the key relationship between food and tourism. Understand the key elements of media and taste. Understand the relationship between media and its impact on the construction of taste.

**Unit-III**

**Theory -** Understand the concept of fast and slow food. Develop an understanding of the originality of regional and seasonal food. Recognize the global presence of slow food organizations. Define and understand key terms around slow food. Explore the concept of sustainability and sustainable development. Understand sustainable value chains, with a focus on food systems and industrial manufacturing systems

**Unit-IV**

**Theory -** Understand the key elements of traditional Indian food. Be able to explain and understand Indian food and culture. Realize the current state of Slow food in India. Analyze the future of slow food in the Indian context. Analyze the practices implemented by various hospitality organizations. Evaluate the role of humans and technology in planning and implementing various practices. Identify potential areas for research and development.

**TEXT BOOK**


- Petrini, C. B, Watson et.al. (2001). Collected Thoughts on Taste, Tradition, and the Honest Pleasure of Food, Slow Food, Chelsea green publishing company. USA.
- Petrini, C, Padovani, G. (2005). Slow Food Revolution, A New Culture for Eating and Living. Rizzoli., ublication. USA.
- Sloan D (ed.) (2004) Culinary Taste: Consumer Behaviour In the International Restaurant Sector Oxford Butterworth Heinemann.


**OTHER RECOMMENDED TEXTS**


- Munjal S., Bhushan S., (eds.) 2017. Chapter 11: Culinary Innovation in Indian Hotels & Building Cost Efficiencies that Spur Profitability Growth. The Indian Hospitality Industry: Dynamics and Future Trends Advances in Hospitality and Tourism. Apple Academic Press.
- Sandeep Munjal & Sanjay Sharma, (2022) Food and Beverage Hospitality Industry in India, CRC Press.


**Final Assessment (FA)**

| | |
|---|---|
| Theory Internal **(TI)** | **15%** |
| Theory External **(TE)** | **35%** |
| Practical Internal **(PI)** | **5%** |
| Practical External **(PE)** | **20%** |
| **Final Assessment** | **75%** |

**Theory Internal (TI)**: The **(TI)** will be done through in-class continuous assessment/in-class test/ coursework/presentation/journal & assignment.

**Theory External (TE):** The **(TE)** will be done through the end-term theory exam.

**The question paper pattern** for the end-term examination will be **70 Marks** and will follow the following pattern:

| | | |
|---|---|---|
| **Question 1** | Questions No. One (1) will have eight (5) MCQs (All Compulsory). | **5*1=5 marks** |
| **Question 2** | Questions No. Two (2) will have six (6) brief answer questions/options.<br><br>(The learner has to answer five (5) out of the six (6). | **5*2=10 marks** |
| **Question 3** | Question No. Three (3) will have five (3) descriptive questions/options<br>(The learner has to answer two (2) out of the three (3). | **2*5= 10 marks** |
| **Question 4** | Question No. Four (4) will have Two (2) descriptive questions/options<br>(The learner can answer one (1) out of the Two (2). | **1*10= 10 marks** |
| | **Total Marks** | **35 marks** |

**Mapping Matrix of Course**

**Table 1: CO-PO Matrix for the Course**

| COURSE OUTCOMES | PO1 | PO2 | PO3 | PO4 |
|---|---|---|---|---|
| **CO1** | 2 | 2 | 2 | 2 |
| **CO2** | 2 | 2 | 2 | 2 |
| **CO3** | 2 | 2 | 2 | 3 |
| **CO4** | 2 | 3 | 2 | 2 |
| **Average** | 2 | 2.25 | 4 | 2.25 |

**Table 2: CO-PSO Matrix for the Course**

| **CO** | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 2 | 2 | 2 | 2 |
| **CO2** | 2 | 2 | 3 | 2 |
| **CO3** | 2 | 2 | 2 | 3 |
| **CO4** | 3 | 2 | 2 | 2 |
| **Average** | 2.25 | 2 | 2.25 | 2.25 |

**Semester II**

**SEC 2 Gender and Law in India: Theory and Practice**

**SEC 2 Gender and Law in India: Theory and Practice (Credits 03)**
**Course ID: 240/PS/SE201**

**Maximum Marks: 75**
**Theory Examination: 50**
**Theory Internal Assessment: 25**
**Examination Time: 3 hrs**

**Course Outcomes:**

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

- Understand the concept, origin and development and types of Feminism.
- Understand the concept of Patriarchy, gender as a social construct and public/private dichotomy.
- Understand the history of women's movement and constitutional provisions related to gender in India. ➢ Gain an in depth knowledge of legal provisions related to gender.

**1. Seven Questions will be set in all and students will be required to attempt 4 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 (2x7=14 marks).**
**3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).**

**Unit 1**

Feminism: Concept, Origin and Development; Types: Liberal, Socialist and Radical Feminism.

**Unit 2**

History of Women's Movement in India; Constitutional Provisions related to Gender in India;

**Unit 3**

Domestic Violence Act 2005, Criminal Law Amendment Act 2014, LGBTQIA issues.

**Recommended Books:**

1.J. Ann Tickner, "Gender in World Politics" in John Baylis et al., (eds), The Globalization Of World Politics : An Introduction to International Relations, Oxford University Press, New York, 2014.

2. Manisha Pathak Shelat, Communication For Gender Sensitization, Concept, New Delhi, 2004.
3. M.P Jain et al., Indian Constitution Law, LexisNexis, New Delhi, 2018.
4 Indira Jaising (eds.), Handbook on Law of Domestic Violence, LexisNexis, New Delhi, 2009.
5.Shobha Saxena, Crime Against Women and Protective Laws, Deep & Deep, New Delhi, 2000.
6. K.L Vibhute, Criminal Law, LexisNexis, New Delhi, 2019.  Lisa M. Stulberg, LGBTQ Social Movements, Polity Press, Cambridge, 2018.
7. Mayank Khari and Aditya Gupta, A Collection of Articles on Contemporary Legal Issues, Educreation, New Delhi, 2018.
8. Virginie Dutoya, "Defining the 'Queers' in India: The Politics of Academic Representation", India Review, 15 (2), 2016.

# Skill Enhancement Course from the department for pool of the Courses in the University

**(These courses are offered by each department for students of other departments/same department and is designed to provide value-based and/or skill-based knowledge and should contain both theory and lab/hands-on/training/field work.)**

**Semester 1**

| Course Code | Course Title | Course ID | L | T | P | L | T | P | Credits | MARKS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (Hrs) | | | Credits | | | | TI | TE | PI | PE | Total |
| SEC-1 | Basics of Typography | 240/ANI/SE 101 | 2 | 0 | 2 | 2 | 0 | 1 | 3 | 15 | 35 | 05 | 20 | 75 |

| Name of Subject: Basics of Typography | Maximum Theory marks: 50 (35+ 15) |
|---|---|
| 240/ANI/SE101 | Maximum Practical Marks: 50 (35+15) |

**Objectives:** To introduce students to the fundamental principles and practices of typography. Students will learn to understand, create, and apply typographic designs effectively in various contexts.

**Course Outcomes:**

By the end of this course, students will be able to:

- Understand the history, anatomy, and classifications of typefaces.
- Apply typographic principles to create visually appealing and readable text.
- Use typography effectively in design projects.

**COURSE CONTENTS:**

| Unit 1: Introduction to Typography | |
|---|---|

| | |
|---|---|
| 1.1 History and evolution of typography<br>1.2 Anatomy of type: parts of a letter, type classifications, and families<br>1.3 Understanding type measurements: points, picas, and pixels<br>1.4 Basic typographic terms and concepts: kerning, tracking, leading, and alignment<br>1.5 Introduction to typefaces and fonts: serif, sans-serif, script, and display | |
| **Unit 2: Principles of Typographic Design** | |
| 2.1 Principles of readability and legibility<br>2.2 Hierarchy and emphasis in typographic design<br>2.3 Combining typefaces: complementary and contrasting type combinations<br>2.4 Using grids and layouts for typographic composition<br>2.5 Introduction to color in typography: contrasts, harmonies, and readability | |
| **Unit 3: Practical Application and Project Development** | |
| 3.1 Designing with type: creating posters, brochures, and digital media<br>3.2 Typographic branding: logos, business cards, and corporate identities<br>3.3 Typography for web and mobile: responsive design and user experience<br>3.4 Critique sessions: analyzing and refining typographic designs<br>3.5 Final project: developing a typographic design portfolio | |

**Suggested Readings:**

- "Thinking with Type: A Critical Guide for Designers, Writers, Editors, & Students" by Ellen Lupton
- "The Elements of Typographic Style" by Robert Bringhurst
- "Typographic Design: Form and Communication" by Rob Carter, Ben Day, and Philip Meggs

# Skill Enhancement Course from the department for pool of the Courses in the University

**(These courses are offered by each department for students of other departments/same department and is designed to provide value-based and/or skill-based knowledge and should contain both theory and lab/hands-on/training/field work.)**

**Semester 2**

| Course Code | Course Title | Course ID | L | T | P | L | T | P | Credits | MARKS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (Hrs) | | | Credits | | | | TI | TE | PI | PE | Total |
| SEC-2 | Applications of Photoshop | 240/ANI/SE201 | 2 | 0 | 2 | 2 | 0 | 1 | 3 | 15 | 35 | 05 | 20 | 75 |

| **Name of Subject: Applications of Photoshop** | Maximum Theory marks: 50 (35+ 15) |
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| 240/ANI/SE201 | Maximum Practical Marks: 50 (35+15) |

**Objectives:** To provide students with a comprehensive understanding of Adobe Photoshop and its applications in various fields such as graphic design, photo editing, digital art, and web design. Students will learn to utilize Photoshop's tools and techniques to create professional-quality projects.

**Course Outcomes:**

By the end of this course, students will be able to:

- Understand the fundamental features and interface of Adobe Photoshop.
- Edit and enhance photographs using advanced techniques.
- Create graphic designs and digital artwork.

**COURSE CONTENTS:**

| **Unit 1: Introduction to Adobe Photoshop** | |
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| 1.1 Overview of Adobe Photoshop: history and applications<br>1.2 Interface and workspace: tools, panels, and preferences<br>1.3 Basic image adjustments: brightness, contrast, hue, and saturation<br>1.4 Working with layers: layer styles, blending modes, and masks<br>1.5 Selection tools: marquee, lasso, magic wand, and quick selection | |
| **Unit 2: Photo Editing and Enhancement** | |
| 2.1 Retouching techniques: removing blemishes, wrinkles, and imperfections<br>2.3 Photo restoration: repairing old and damaged photographs<br>2.4 Advanced color correction and grading<br>2.5 Creating composite images: combining multiple photos seamlessly | |
| **Unit 3: Graphic Design and Digital Art** | |
| 3.1 Designing posters, flyers, and brochures<br>3.2 Creating logos and branding materials<br>3.3 Introduction to digital painting: brushes, textures, and layers<br>3.4 Typography in Photoshop: text effects, formatting, and manipulation | |

**Suggested Readings:**

- "Adobe Photoshop Classroom in a Book" by Andrew Faulkner and Conrad Chavez
- "The Adobe Photoshop Lightroom Classic CC Book" by Martin Evening
- "Photoshop for Photographers: A Complete Guide for Photographers" by Martin Evening

**Semester-2**

**SEC-02 Life Skill-2 (Credits 03)**

**Maximum Marks: 75**

**Theory Examination: 35**

**Theory Internal Assessment: 15**

**Practical Examination: 20**

**Practical Internal Assessment: 05**

**Examination Time: 2 hrs**

**Course Outcomes:**

- Developed awareness of the cognitive and behavior-based components of life skills, along with effective strategies for teaching and enhancing these skills.
- Acquired in-depth knowledge of various life skills and their practical applications through different instructional methods, such as projects, demonstrations, and observations.

**Instructions:**

The students will be required to attempt four questions in all. Question No. I will be compulsory comprising of 5 short answer type questions of 1 mark each and will cover the entire syllabus 1X 5 = 5 marks. In addition to it, Question Nos. II to VII will consist of long answer (essay type) questions, two Questions from each Unit with internal choice carrying 10 marks each i.e. 3 X 10 = 30 marks thus making it the total weight age to 35 marks. Three questions to be attempted. One from each unit.

**Unit-I**

Life Skills: Cognitive based (critical thinking, knowledge construction, evaluating reasoning, solution focused thinking); Behavior based (ethics, integrity, problem solving and decision making).

**Unit-II**

Significance and development of Life skills ; Strategies for enhancing life skills.

**Unit-III**

Methods of Teaching Life Skills: Project, Demonstration, Observation, Experiment and Integrated method; Role of teachers and community members in Life skill education.

***Suggested Readings***


1. SCERT .Life Skills Education-Guidebook for Teachers (SCERT)
2. Sengararvelu,G. (2011) .Education in Emerging Indian Society, Neel Kamal Publication Pvt Ltd.
3. Baron.A. Robert. Branscombe, R. Nyla et al. (2010). (12th Edition) New Delhi: Tata McGraw Hill.
4. Bishop, S. (1999). Assertiveness skills – A source book of activities, New Delhi: Viva Publishers Pvt. Ltd.
5. Burnard, P. (1999). Interpersonal Skills – A source book of activities, New Delhi: Viva Publishers Pvt.Ltd.