University of Rajasthan
Jaipur

Syllabus of Skill Enhancement Courses

As per UGC Curriculum and CBCS

Framework for Undergraduate Programmes

Under NEP- 2020
For
Three/Four Year Under Graduate Programme in

(Semester – I to VI)
In
Faculty of Arts/Science/Commerce/Social
Science/ Fine Arts

w.e.f. Academic Session - 2023-24

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For each semester one Skill Enhancement Courses is to be selected by every Students.

SKILL ENHANCEMENT COURSES (SEC)

The introduction of Skill Enhancement courses into the Undergraduate Curriculum under the National Education Policy (NEP) 2020 signifies a significant leap forward in providing students with a bolistic and practical education. These courses play a crucial role in equipping students with both technical and professional skills, empowering then to excel and adapt in the dynamic job market. The University of Rajasthan has taken proactive steps in offering a diverse range of Skill Enhancement courses, encompassing domains such as Computer Science, communication, digital literacy, entrepreneurship, and leadership, among others. This invaluable exposure not only aids students in making well-informed career decisions but also substantially enhances their employability prospects. Embracing these skill-oriented courses. the NEP-2020 envisions cultivating a generation of capable and job-ready professionals. fostering a brighter and more promising future for the young graduates.

Students enrolled in any undergraduate program at the University and/or its affiliated constituent colleges are provided with a diverse selection of skill enhancement courses during the First and Second Semesters. This pool of courses offers students the opportunity to choose from a variety of options to enrich their skills and knowledge. Students can tailor their learning experiences by selecting courses that align with their interests and career aspirations, ensuring a well-rounded education and enhanced employability prospects. The list of such courses is as follows-

S.No.	Course Code-Course Title	Is offered to NC students	Total Credit	Delivery type of Course
1	SEC-002-Introduction to Office Productivity Software	No	2	P
2	SEC-005-Effective Communication Skills 6. SEC--Leaning Life Skills	No	2	T+P
3	SEC-008-Quantitative Aptitude and Data Interpretation	Yes	2	T
4	SEC-011-Data Literacy	Yes	2	T
5	SEC-017-Vermicomposting	No	2	T+P

Syllabus

SEC-002 – Introduction to Office Productivity Software

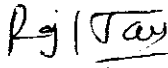| Semester	Code of the Course	Title of the Course/Paper		NHEQF Level	Credits
I/II	SEC-002	Introduction to Office Productivity Software		5	2
Level of Course	Type of the Course	Credit Distribution	Offered to NC	Delivery Type of the Course	
		Theory / Practical	Student		
Introductory	Skill Enhancement	- / 2	NO	60 Hours Practical	
Prerequisites	XII Pass				
Objectives of the Course:	Objectives of the Course – The objective of this course is to provide participants with a comprehensive understanding of the fundamental features and functionalities of word processing tools, electronic spreadsheets, and presentation software. Through hands-on practice and theoretical knowledge, participants will develop the skills necessary to efficiently create, format, and manage documents, spreadsheets, and presentations. By the end of the course, participants will be able to use these tools effectively to enhance their productivity in various professional and personal scenarios.				

Examination Scheme-

Regular Students –

Type	Paper code and Nomenclature	Duration of Examination	Maximum Marks (Midterm + EoSE)	Minimum Marks (Midterm + EoSE)
Practical	SEC-002- Introduction to Office Productivity Software	1 Hrs-MT 1 Hrs-EoSE	10 Marks-MT 40 Marks-EoSE	4 Marks-MT 16 Marks-EoSE

The Practical examination Scheme for **Introduction to Office Productivity Software** should be as follows –

- Three Practical Exercise of 10 Marks each from each Unit – 30 Marks
- Viva-Voce – 10 Marks
- Record – 10 Marks

Duration of Practical Examination will be of 1 Hours.

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Detailed Syllabus

SEC-002 – Introduction to Office Productivity Software

Unit – I

Word Processing Tools:

Text Basics: Typing the text, Alignment of text, Editing Text: Cut, Copy, Paste, Select All, Clear. Find & Replace. **Text Formatting and saving file:** New, Open, Close, Save, Save As, Formatting Text: Font Size, Font Style, Font Colour, Use the Bold, Italic, and Underline, Change the Text Case, Line spacing, Paragraph spacing. Shading text and paragraph. Working with Tabs and Indents, **Objects:** Shapes, Clipart and Picture, Word Art, Smart Art, Columns and Orderings - To Add Columns to a Document, Change the Order of Objects, Page Number. Date & Time, Inserting Text boxes, Inserting Word art, inserting symbols, Inserting Chart, **Header & Footers:** Inserting custom Header and Footer, inserting objects in the header and footer, add section break to a document **Bullets and numbered lists:** Multilevel numbering and Bulleting. Creating List, Customizing List style, Page bordering, Page background, **Tables:** Working with Tables, Table Formatting, Table Styles, Alignment option, Merge and split option, **Styles and Content:** Using Build- in Styles. Modifying Styles, Creating Styles, Creating a list style, Table of contents and references, Adding internal references, Adding a Footnote, Adding Endnote **Merging Documents:** Typing new address list, Importing address list from Excel file, Write and insert field, Merging with outlook contact, Preview Result, Merging to envelopes, Merging to label, Setting rules for merges, Finish & Merge options **Sharing and Maintaining Document:** Changing Word Options, Changing the Proofing Tools, Managing Templates, Restricting Document Access, Using Protected View, Working with Templates, Managing Templates, Understanding building blocks **Proofing the document:** Check Spelling As You Type, Mark Grammar Errors As You Type, Setting AutoCorrect Options **Printing:** Page Setup, setting margins, Print Preview, Print

(20 Hours Practical)

Unit -II

Electronic Spreadsheet:

Introduction to spreadsheet: Introduction, Understanding rows and columns, Naming Cells, Working with excel workbook and sheets , **Formatting excel work book::** New, Open, Close, Save, Save As, Formatting Text: Font Size, Font Style. Font Color, Use the Bold, Italic, and Underline, Wrap text, Merge and Centre, Currency, Accounting and other formats, Modifying Columns. Rows & Cells, **Perform Calculations with Functions:** Creating Simple Formulas, Setting up your own formula, Date and Time Functions, Financial Functions, Logical Functions, Lookup and Reference, Functions Mathematical Functions, Statistical Functions, Text Functions, **Sort and Filter Data :** Sort and filtering data, Using number filter, Text filter, Custom filtering. Removing filters from columns, Conditional formatting. **Create Charts:** Create an effective chart with Chart Tool, Design. Format, and Layout options. Adding chart title. Changing layouts, Chart styles. Editing chart data range. Editing data series. Changing chart , **PivotTables and Pivot Charts:** Understand PivotTables. Create a PivotTable. Framework Using the PivotTable and PivotChart. Create Pivot Chart from pivot Table, Inserting slicer. Creating Calculated fields **Protecting and Sharing the work book:** Protecting a workbook with a password. Allow user to edit ranges, Track changes. Working with Comments, Insert Excel Objects and Charts in Word Document and Power point Presentation. **Use Macros to Automate Tasks:** Creating and Recording Macros. Assigning Macros to the work sheets. Saving Macro enabled workbook **Proofing and Printing:** Page setup, setting print area, print titles, inserting custom Header and Footer, inserting objects in the header and footer. Page Setup, setting margins. Print Preview. Print. enable back ground error checking. Setting Auto Correct Options

(20 Hours Practical)

POWERPOINT:

Setting Up PowerPoint Environment: :New, Open, Close, Save, Save As, Typing the text, Alignment of text, Formatting Text: Font Size, Font Style , Font Color, Use the Bold, Italic, and Underline, Cut, Copy, Paste, Select All, Clear text, Find & Replace, Working with Tabs and Indents, **Creating slides and applying themes:** Inserting new slide, Changing layout of slides, Duplicating slides, Copying and pasting slide, Applying themes to the slide layout, Changing theme color ,Slide background , Formatting slide background ,Using slide views , **Working with bullets and numbering:** Multilevel numbering and Bulleting, Creating List , Page bordering, Page background, Aligning text, Text directions, Columns option **Working with Objects:** Shapes, Clipart and Picture, Word Art, Smart Art, Change the Order of Objects, Inserting slide header and footer, Inserting Text boxes, Inserting shapes, using quick styles, Inserting Word art, Inserting symbols, Inserting Chart, **Hyperlinks and Action Buttons:** Inserting Hyperlinks and Action Buttons, Edit Hyperlinks and Action Button, Word Art and Shapes **Working With Movies and Sounds:** Inserting Movie From a Computer File, Inserting Audio file , Audio Video playback and format options, Video options, Adjust options, Reshaping and bordering Video, **Using SmartArt and Tables:** Working with Tables, Table Formatting, Table Styles, Alignment option, Merge and split option, Converting text to smart art, **Animation and Slide Transition:** Default Animation, Custom Animation, Modify a Default or Custom Animation, Reorder Animation Using Transitions ,Apply a Slide Transition, Modifying, Transition, Advancing to the Next Slide, **Using slide Master:** Using slide master, Inserting layout option, Creating custom layout, Inserting place holders, Formatting place holders, **Slide show option:** Start slide show, Start show from the current slide, Rehearse timing, creating custom slide show, **Proofing and Printing:** Check Spelling As You Type, Setting AutoCorrect Options, Save as video, Save as JPEG files, Save as PowerPoint Show file, Print Preview, Print

(20 Hours Practical)

Suggested Books and References –
1. Microsoft Office for Beginners by M.L. Humphrey
2. Microsoft Word 2016 Step by Step by Joan Lambert and Curtis Frye
3. Excel 2016 Bible by John Walkenbach
4. PowerPoint 2016 For Dummies by Doug Lowe
5. Microsoft Office 2016 In Practice by Randy Nordell

Course Learning Outcomes:

By the end of the course, students should be able to:
1. **Word Processing:**
   - Format documents using advanced text styling and alignment.
   - Manipulate text with cut, copy, paste, and find & replace functions.
   - Enhance document layout with headers, footers, and page numbering.
   - Create visually appealing content using tables, objects, and styles.
   - Efficiently merge documents and manage templates for streamlined work.
2. **Electronic Spreadsheet:**
   - Apply formatting and calculations using a variety of functions.
   - Organize and analyze data through sorting, filtering, and charts.
   - Automate tasks with macros and protect workbooks with passwords.
   - Create dynamic pivot tables for data visualization and analysis.
3. **PowerPoint:**
   - Design captivating presentations with themes, formatting, and multimedia
   - Incorporate interactive elements like hyperlinks and action buttons.
   - Apply animations and transitions for engaging slide shows.
   - Customize master slides for consistent and polished presentations.

Syllabus

SEC-005 – Effective Communication Skills

Semester	Code of the Course	Title of the Course/Paper		NHEQF Level	Credits
I/II	SEC-005	Effective Communication Skills		5	2

Level of Course	Type of the Course	Credit Distribution		Offered to NC Student	Delivery Type of the Course
		Theory	Practical		
Introductory	Skill Enhancement	2	-	No	20 Lectures and 20 Hour Activity Based
Prerequisites	XII Pass				
Objectives of the Course:	• Develop a deep understanding of key concepts • To acquire good LSRW • To Prepare them for course and employment • Understand the importance of empathetic listening • Master a subject or tool with hands-on projects				

Examination Scheme-

Regular Students –

Type	Paper code and Nomenclature	Duration of Examination	Maximum Marks (Midterm + EoSE)	Minimum Marks (Midterm + EoSE)
	SEC-004-Effective Communication Skills	1 Hrs-MT 1 Hrs-EoSE	10 Marks-MT 40 Marks-EoSE	4 Marks-MT 16 Marks-EoSE

Question paper for Effective Communication Skills will be so set that it has 40 multiple choice questions (Bilingual) of One mark each. The Question paper will be of duration of 1 hours. The examinees will have to give their answers on OMR sheet only to be provided by the University whose evaluation will be done based on OMR Scanning Technology.

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Detailed Syllabus

SEC-005 – Effective Communication Skills

Unit 1:

Communication Process

        Meaning of Communication and its Components

        Types of Communication

        Barriers of Communication

        Activity based Learning

        (8 Lectures)

Unit 2:

Non-Verbal Communication

        Meaning of non-verbal communication

        Introduction to modes of non-verbal communication

        Do's and Don'ts

        Activity based Learning

        (7 Lectures)

Unit 3:

Listening and Speaking Skills

        Techniques of Effective Listening

        Listening and Comprehension

        Understanding English Sounds, Tone and Intonation

        Activity based Learning

        (8 Lectures)

Unit 4:

Reading and Writing Skills

        Techniques of Effective Reading

        Reading and Comprehension

        Common Errors

        Activity based Learning

        (7 Lectures)

Suggested Books and References –

1. English Communication – A Textbook for AECC-2 (Cambridge),
   Somak Mandal/ Sharmishtha Chatterjee Sriwastav (Cambridge)
5. Interact – A Course in Communicative English,
   Malathy Krishnam/ Zinia Mitra/ Binayak Ray (Cambridge)
6. English Fluency – I, Pooja Khanna/ Neerja Deswal
7. Sen Madhucchanda (2010). An Introduction to Critical Thinking. Pearson, Delhi
8. Silvia P.J. (2007). How to Read a Lot. American Psychological Association, Washington DC

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Suggested E-resources:

1. Online Lecture Notes and Course Materials:
   Online platform SWAYAM

Course Learning Outcomes:

By the end of the course, students should be able to:

1. By the end of this program participants should have a clear understanding of what good communication skills are and what they can do to improve their abilities.
2. Participate in a digital lifestyle conversant with computers, applications, Internet and nuances of cyber security.
3. Engage in effective communication by respecting diversity and embracing good listening skills.
4. Distinguish the guiding principles for communication in a diverse, smaller internal world.

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SEC-008 – Quantitative Aptitude and Data Interpretation

Semester	Code of the Course	Title of the Course/Paper	NHEQF Level	Credits
I/II	SEC-008	Quantitative Aptitude and Data Interpretation	5	2

Level of Course	Type of the Course	Credit Distribution		Offered to NC Student	Delivery Type of the Course
		Theory	Practical		
Introductory	Skill Enhancement	2	-	Yes	30 Hours Lecture
Prerequisites	XII Pass				
Objectives of the Course:	Objectives of the Course – • To provide a strong foundation in the number system and basic arithmetic concepts. • To understand divisibility rules, decimal fractions, greatest common divisor (GCD), least common multiple (LCM), surds, indices, and simplifying square and cube roots. • To solve problems related to averages, ages, allegations, and percentages.				

Examination Scheme-

Regular Students –

Type	Paper code and Nomenclature	Duration of Examination	Maximum Marks (Midterm + EoSE)	Minimum Marks (Midterm + EoSE)
Theory	SEC-008- Quantitative Aptitude and Data Interpretation	1 Hrs-MT 1 Hrs-EoSE	10 Marks-MT 40 Marks-EoSE	4 Marks-MT 16 Marks-EoSE

Question paper for Quantitative Aptitude and Data Interpretation will be so set that it has 40 multiple choice questions (Bilingual) of One mark each. The Question paper will be of duration of 1 hours. The examinees will have to give their answers on OMR sheet only to be provided by the University whose evaluation will be done based on OMR Scanning Technology.

Non-Collegiate Students –

Type	Paper code and Nomenclature	Duration of Examination	Maximum Marks (EoSE)	Minimum Marks (EoSE)
Theory	SEC-008- Quantitative Aptitude and Data Interpretation	1 Hrs	50 Marks	20 Marks

Question paper for Quantitative Aptitude and Data Interpretation will be so set that it has 50 multiple choice questions (Bilingual) of One mark each. The Question paper will be of duration of 1 hours. The examinees will have to give their answers on OMR sheet only to be provided by the University whose evaluation will be done based on OMR Scanning Technology.

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Detailed Syllabus

SEC-008 – Quantitative Aptitude and Data Interpretation

Unit – I

Number system, divisibility, decimal fractions, GCD & LCM, surds and indices, Squares and Cubes, square roots and cube roots, problems on averages and ages, allegations, percentage.

(08 Lectures)

Unit -II

Profit & loss, partnership, discount, simple & compound interest, ratio & proportion and variation.

(06 Lectures)

Unit -III

Time and work, time, speed and distance, geometry and mensuration, coordinate geometry, functions, inequalities, quadratic and other equations, logarithms, permutations and combinations, probability, set theory

(08 Lectures)

Unit-IV

Basic modes of data Interpretation, Data, Nature of Data, Data represents variable, types of variable need for capturing data, Data interpretation -definition, organization and presentation, Tabular presentation, Tables, bar Charts- Simple, Stacked, Composite, representation of percentage, show deviation, XY Charts, Pie Charts, Cases, Challenges of data interpretation, Data Sufficiency

(08 Lectures)

Suggested Books and References –

1. R.S. Aggarwal, Quantitative Aptitude for Competitive Examinations, S. Chand, 2018.
2. Arun Sharma, Teach Yourself Quantitative Aptitude, McGraw Hill, 2019.
3. P.A. Anand, Wiley Quantitative Aptitude For Competitive Exams, Wiley India Pvt.Ltd, 2015.
4. Rajesh Verma, Fast Track Objective Arithmetic, Arihant Publications, 2018.
5. Nishit K. Sinha - The Pearson Guide to Quantitative Aptitude and Data Interpretation for the CAT-Pearson Education (2012)

Course Learning Outcomes:

By the end of the course, students will be proficient in solving a range of mathematical problems, interpreting data, and making informed decisions in various contexts. They will have developed quantitative reasoning skills that can be applied both academically and in practical situations.

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Syllabus

SEC-011 – Data Literacy

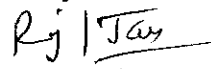| Semester	Code of the Course	Title of the Course/Paper		NHEQF Level	Credits
I/II	SEC-011	Data Literacy		5	2
Level of Course	Type of the Course	Credit Distribution	Offered to NC Student	Delivery Type of the Course	
		Theory	Practical		
Introductory	Skill Enhancement	2	-	Yes	30 Hours Lecture
Prerequisites	XII Pass				
Objectives of the Course:	Objectives of the Course – The objective of this course is to develop students' data literacy skills. This course will give students skills in understanding and interpreting data from simple descriptive representation of data, to the use of graphs.				

Examination Scheme-

Regular Students –

Type	Paper code and Nomenclature	Duration of Examination	Maximum Marks (Midterm + EoSE)	Minimum Marks (Midterm + EoSE)
Theory	SEC-011- Data Literacy	1 Hrs-MT 1 Hrs-EoSE	10 Marks-MT 40 Marks-EoSE	4 Marks-MT 16 Marks-EoSE

Question paper for Data Literacy will be so set that it has 40 multiple choice questions (Bilingual) of One mark each. The Question paper will be of duration of 1 hours. The examinees will have to give their answers on OMR sheet only to be provided by the University whose evaluation will be done based on OMR Scanning Technology.

Non-Collegiate Students –

Type	Paper code and Nomenclature	Duration of Examination	Maximum Marks (EoSE)	Minimum Marks (EoSE)
Theory	SEC-011- Data Literacy	1 Hrs	50 Marks	20 Marks

Question paper for Data Literacy will be so set that it has 50 multiple choice questions (Bilingual) of One mark each. The Question paper will be of duration of 1 hours. The examinees will have to give their answers on OMR sheet only to be provided by the University whose evaluation will be done based on OMR Scanning Technology.

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Detailed Syllabus

SEC-011 – Data Literacy

Unit – I

Data- Meaning and Types, Nature and Properties of Data, Uses of Data

(07 Lectures)

Unit -II

Sources of Data, Types of Government Data, Types of Measurement, Reliability and Validity

(07 Lectures)

Unit -III

Techniques of data Collection, Text as Data, Different Data sets and how to read them

(08 Lectures)

Unit-IV

Data visualization, Graphical and Tabular representation of data, Types of Data Analysis

(08 Lectures)

Suggested Books and References –

1. Walliman Nicholas, Research Methods- The Basics, Routledge, 2011
2. Pandey P. and Pandey M.M, Research Methodology: Tools and Techniques, Bridge Center, 2015
3. Kothari C. R. Research Methodology: Tools and Techniques, (Chapter 6), New Age International Publishers, 1990
4. Research Methods, Alagappa University, Unit 8-11, Vikas Publishing House, 2020

Suggested E-resources:

Online Lecture Notes and Course Materials:
1. https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=sP9KhysDemvbqPHPOAmaYw==
2. https://egyankosh.ac.in/bitstream/ unit 2
3. https://www.toppr.com/guides/maths/statistics/data/
4. https://www.simplilearn.com/what-is-data-article

Course Learning Outcomes:

By the end of the course, students should be able to:
1. Identify different types of data and data sources
2. Evaluate how quantitative data is used within everyday life and academics:
3. Recognise the limitations of quantitative data:
4. Apply basic data literacy skills to practical analysis of datasets.

Detailed Syllabus

SEC-017- Vermicomposting

Unit - I

Earthworms – Taxonomic position, external features- shape, size, colour, segmentation, setae& clitellum. Reproductive system-Male & Female, copulation, cocoon formation & fertilization,; ecological grouping – Epigeic species, Endogeic species and Anecics.

(4 Lectures)

Unit -II

Vermiculture – definition, scope and importance; common species for culture: Environmental parameters; culture methods – wormery – breeding techniques: indoor and outdoor cultures - monoculture and polyculture – merits and demerits; Limiting factors-climatic factors, pH, humidity, Temperature, gases, xenobiotics

(4 Lectures)

Unit -III

Vermicomposting of wastes in field pits, ground heaps, tank method, roof shed method, wedges & bin method; harvesting the compost, storage, Vermiwash-Preparation and application vermicomposting harvest and processing. Nutritional composition of vermicompost; Comparison with other fertilizers.

(4 Lectures)

Unit-IV

Applications of vermiculture –use of vermicastings in organic farming/horticulture, earthworms for management of municipal/selected biomedical solid wastes: as feed/bait for capture/culture fisheries; forest regeneration.

(3 Lectures)

Practicals:

1. Collection of earthworms from soil and identification
2. Study of life stages and development of Earthworms
3. Study of vermiculture, Vermiwash and vermiculture equipment and devices
4. Analysis of vermicompost nutritional status
5. Visit to a vermicompost manufacturing unit

(30 Hours Lab Activity)

Suggested Books and References –

1.Sultan Ahmed Ismail. 2005. The Earthworm Book, Second Revised Edition. Other india Press. Goa, India.
2.Bhatnagar & Patla.2007. Earthworm vermiculture and vermin-composting. Kalyani Publishers.New Delhi .
3.Mary Violet Christy,2008. Vermitechnology,MJP Publishers, Chennai.
4.Aravind Kumar. 2005.Verms &Vermitechnology, A.P.H. Publishing Corporation, New Delhi.
5.Jordan & Verma.2009. Invertebrate Zoology , Chand & Company Ltd
6. Edwards. C A & J.R Lofty Vermicology The Biology of earthworm, 1997 Chapman & Hall Publications N.Y.U.S.A.

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Course Learning Outcomes:

By the end of the course, students should be able to:

(i) To develop basic theoretical knowledge about morphology, ecology and role of earthworms in enhancing soil fertility.
(ii) To perform vermicomposting using the locally available organic waste items.
(iii) To adopt vermicomposting as a tool of organic farming on a smaller scale.

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