

St. Joseph's College for Women
Civil Lines, Gorakhpur

Add on course syllabus

सेंट जोसेफ कॉलेज फॉर विमेन, सिविल लाइन, गोरखपुर

हिन्दी विभाग

विषय: हिन्दी व्याकरण

व्याकरण शिक्षण का उद्देश्य:

- 1) छात्राओं को हिन्दी भाषा का सम्यक-बोध कराना ।
- 2) हिन्दी भाषा को शुद्ध रूप में लिखने और बोलने संबंधी विषयों का बोध कराना ।

1.इकाई:

- अ- हिन्दी व्याकरण का परिचय
- ब- हिन्दी व्याकरण के अंग

2.इकाई:

- क- हिन्दी वर्ण
- ख- संज्ञा
- ग- सर्वनाम
- घ- विशेषण
- च- अव्यय

3.इकाई:

- क- क्रिया
- ख- क्रिया विशेषण
- ग- काल
- घ- लिंग
- च- वचन

4.इकाई:

- क- संधि

ख- समास

ग- प्रत्यय

घ- उपसर्ग

च- कारक

5.इकाई:

क- रस

ख- छंद

ग- अलंकार

घ- विराम चिन्ह

A course in communicative English

(Add-on course by department of English)

OBJECTIVES:

The course focuses on developing macro and micro English language skills such as listening, speaking, reading, and writing skills including vocabulary and grammar.

COURSE OUTCOMES:

1. **Develop an understanding of the importance of communication in 9daily as well as professional life.**
2. **Overcome the barriers of listening skills as units focuses on verbal mannerisms and physical inabilities and active listening.**
3. **Speak English confidently in familiar situations.**
4. **Make notes from books, journals, articles and newspapers.**
5. **Write simple letters for both personal and official purposes.**
6. **Improve their study skills and become independent learners.**
7. **Write technical reports and proposal**

UNIT 1: LISTENING AND SPEAKING COMPETENCE : Listening and feedback: the hearing listening distinction, stages of listening process, types of listening, variables affecting listening Developing Listening Skills: understanding gist, main points, deduce meaning. Listening for specific information Listening to a conversation, speech and lecture Listening for global information Loud Reading for pronunciation and fluency Situational Conversation Extempore Readings.

UNIT 2:NEWSPAPER REPORT AND FEATURE WRITING: Reporting different news stories, Feature articles, Importance and types of headlines, Writing letters to the editor of a newspaper, Classified advertisements, Photo-journalism and caption writing.

UNIT 3:SCRIPT WRITING FOR RADIO AND TELEVISION : Radio Script Writing Various types of scripts Field reporting: qualities and skills Storyboard Writing radio commercials, interviews, talk shows and studio discussions Unit 2: Television Script Writing TV programme format Reporting skills and editing Storyboard writing- television commercials (camera angles & movements, transitions, graphics and special effects) Script writing for TV on matters of public interest.

UNIT 4:SOFT SKILLS : Self-Motivation, Leadership, Responsibility, Teamwork, Problem Solving, Decision-Making, Ability, Time Management, Negotiation and Conflict Resolution, Persuasion Critical and lateral thinking Mock interview Group discussion PowerPoint Presentation: techniques and application.

Home Science Department

Add On Course-Syllabus

(15 Credit)

Unit-1

Tie-dye

- Introduction and History
- Components and Principles
- Methods

Unit-2

- Tying Process (Practical)
- Dyeing Process (Practical)

Unit-3

Batik Printing

- Introduction and History
- Components and Principles
- Methods

Unit-4

- Practical Application

(Practical)

Unit-5

Millet

- Introduction
 - History
 - Types Of Millets
 - Nutritional components of Millets
 - Nutritional Importance of Millets for Physical and Mental Health
- Test on Tie-dye, Batik and Millets.

ST. JOSEPH'S COLLEGE FOR WOMEN, CIVIL LINES, GORAKHPUR

DEPARTMENT OF PSYCHOLOGY

TITLE: ADD ON COURSE ON FUNDAMENTALS OF LIFE SKILLS

Objectives of the Course

- Develop understanding into the fundamentals of life skills.
- Experience self-awareness and develops ways to deal with challenges and demands of life.
- Develop competencies to classify different types of life skills.
- Explore ways of practicing life skills education.
- Develop competencies to understand and handle issues of different stages of life.

Total Credits: 15

Course Module

Unit-I

Introduction to life skills- Concept of Life Skills, Different types of life skills- Life Skills, Survival Skills and Livelihood Skills. Models of life Skills. (WHO Model, 4 H Targeting Life Skills Model)

Unit-II

Skill acquisition- Coping strategies: Coping with emotions, Coping with stress, Resilience skill, Interpersonal skills

Unit-III

Social media skills, Digital etiquette

Unit-IV

Communication and Public speaking skills- Communication skills (Types of communication, Styles of Communication, Barriers in communication, strategies for effective communication)

Unit-V

Assertiveness training and Personal Control.

Course Outcomes:

The aim of this course is to provide learners of different backgrounds with the resources required to foster both personal development and a constructive contribution to society. This course will increase students' capacity to acquire life skills for personal growth as well as for imparting life skills to others.

Department of Education

Course Title: Education and Social Change

Learning Outcomes:

On completion of this course, learners will be able to:

- Understanding of social systems and their impact on education.
- Development of critical thinking skills to analyze social issues.
- Awareness of diversity, inequality, and systemic injustices.
- Ability to advocate for social justice and equity in education.

Unit 1

Introduction to Social Change

- Social Change meaning and definition
- Features of Social Change
- Factors or Causes of Social Change
- Social Change and Cultural Change
- Relationship between Education and Social Change

Unit 2

Social Change and Modernization

- Urbanization, Modernization and Education
- Relationship between Urbanization and Education
- Social Change and Urbanization

Unit 3

Social Change and Social Mobility

- Meaning of Social Mobility
- Social Mobility and Urbanization

Unit 4

Education and Socialization

- The process of Socialization of children
- Components or Factors of Socialization
- Education as a process of Socialization
- The role of the Invigilator in Socialization

ST. JOSEPH'S COLLEGE FOR WOMEN, CIVIL LINES, GORAKHPUR

DEPARTMENT OF EDUCATION

(B.Ed.)

TITLE: ADD ON COURSE ON TECHNOLOGY AND ICT

COURSE CONTENT

Unit-I

Mass Media: Uses, advantages and limitations of radio, television, films, current status of mass media in education. Role of teacher in using mass media, how to select media for instruction. Open Educational Resources

Unit-II

ICT and Multimedia as Technology- enhanced communication devices in teaching-learning, interactive white board.
Computer as a learning resource

Unit-III

Internet as an information Resource,

Designing and Development Technology- Enhanced Learning Material,
Changing roles and competencies of a teacher in technology enhanced learning, Computer Assisted Instruction.

Unit-IV

Knowledge regarding working of various hardware- overhead projector, LCD, Computer, CCTV.

Online Learning & networking, e-mail, tele- conferencing

Role of CIET, UGC and IGNOU in production of educational television programmes and software.

Learning Outcomes:

The aim of this course is to demonstrate knowledge, attitude, and skills of digital age and learning .Plan ,design and assess effective learning environments and experiences. The students can implement curriculum technology –enabled assessment and evaluation strategies for personal development as well as for others.

Book Recommended :

Davies, I. K.: The Management of Learning

Dececco & Crawford: The psychology of learning and instruction

Merrit: Educational Technology

Smith & Moore: Programmed Learning

Taber & Glaser Learning & programmed Instruction

Economics

Course Learning Outcomes:

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

1. Gain a sound command over the basic tenets of demography as well as key demographic issues and illustrations in the context of a large and diverse country like India.
2. Grasp a clear understanding of the inter-relationship between demography and the process of economic development
3. Comprehend the basic components of population (fertility, mortality, migration)
4. To study established theories of population
5. To explore various aspects of the population policy and to study its impact on socio economic issues

Gist of this course in maximum 3 to 4 lines

The course tends to develop a basic understanding of demographic theory and its application to various aspects of the economy. The course will also help in presenting an economic argument and develop analytical abilities of different demographic concepts in quantitative

Unit-I

- Evolution of Population Science as a separate discipline.
- Distinction between Demography & Population Science.
- Basic Components in demography.

Unit-II

- Components of Population Change;
- Importance of the study of Population composition and structure
- Historical trends and present situation

Unit-III

- Population size growth and sex- age structure of the population of the world and developing and developed countries.
- Present situation of the size, growth and sex-age structure of the population of Indian and States/Union Territories.

Unit-IV

- Basic components of population education.
- Need and importance of Population education.
- Difference between Population and sex education.
- Life skill education/family life education.

References

1. Agarwal S.S. (1985) 'India's Population Problem' – Tata McGraw Hill Publication, Bombay.
2. A.K. P.C. Swain (2008) – 'Population Studies' – Kalyani Publications, Ludhiana.
3. Bhende A.A. & Tara Kanitkar (1982) – 'Principles of Population Studies'– Himalaya Publishing House, Bombay.
4. Hans Raj (1984) – 'Fundamentals of Demography – Surjeet Publication, Delhi.
5. Dr. D.D.Kachole (2001) – 'Demography' – Kailasha Publication, Aurangabad.

ADD-ON COURSE ON SOFTWARE TOOLS FOR CHEMICAL STRUCTURAL DESIGNING

Department of Chemistry, St. Joseph's College for Women, Civil Lines, Gorakhpur offers an Add-On Course On "ADD-ON COURSE ON SOFTWARE TOOLS FOR CHEMICAL STRUCTURAL DESIGNING" for Degree students. This Non-Degree Course involves both theory and practical session.

COURSE OBJECTIVES:

St. Joseph's College for Women, Civil Lines, Gorakhpur offers 15 Hrs course on "Software Tools for Chemical Structural Designing" for UG students. There is a great demand of familiarizing various research tools such as ChemDraw, Chems sketch, Origin and many computational chemistry software's which are the widely used in their studies. Chemdraw and chemsketch are used for the purpose of molecular modelling and structure designing. The scientific graphing and data analysis are done by using origin software. The course aimed at imparting skills on advanced field in chemistry that are essential for any graduate students with chemistry.

COURSE DURATION:

Duration : 15 Days (15 Hrs)

Theoretical: 8 Hrs

Hands On / Practical Work: 4 Hrs

Assignments and Seminars: 3 Hrs

COURSE MODULE

UNIT-I : Introduction to Chemdraw

Introduction to basic features of Chemdraw, Chemical structure to name conversion, Chemical name to structure conversion, NMR spectrum simulation (both $^1\text{H-NMR}$ & $^{13}\text{C-NMR}$), Mass spectrum simulation, structure clean up, export to SVG, PDF.

UNIT-II : Introduction to Chems sketch

Introduction to Chems sketch-Molecular modelling , create and modifying images of chemical structures, write and perform chemical equations and diagrams.

UNIT-III : Introduction to Origin

Introduction to Origin, basic features like Scientific graphing, drawing various 2D & 3D plots.

UNIT-IV : Analysis using Origin

Data analysis, statistics, signal processing, curve fitting, peak analysis, conversion of graph to various file format like JPEG,GIF,EPS.

EVALUATION

Assessment of candidate will be done through theoretical assignments, projects / seminars.

COURSE OUTCOMES:

- Applying chemdraw and chemsketch software for molecular modelling, writing structures and chemical equations.
- Help in structural and spectroscopical analysis of chemical compounds.
- To understand scientific graphing and data analysis.
- Applying computational chemistry software is for calculating molecular parameters.

St. Joseph's College for Women, Civil Lines, Gorakhpur, Uttar Pradesh

Department of Botany

Course Title: Biodiversity and the Role of Medicinal Plants in Primary Health Care

Course duration: 15 days

Course Overview:

This course provides an in-depth exploration of the diverse plant species contributing to biodiversity and their essential role in primary health care. With a focus on medicinal plants, students will gain a thorough understanding of their applications in maintaining and promoting human health. By integrating ecological principles, traditional knowledge, and modern healthcare practices, the course aims to foster a holistic perspective on biodiversity conservation and sustainable healthcare.

Learning Outcomes:

1. Define biodiversity and its significance in ecological systems.
2. Analyze the historical use of medicinal plants in traditional healing systems.
3. Examine the ecological role of medicinal plants in various ecosystems.
4. Understand the chemical constituents and pharmacological properties of medicinal plants.
5. Evaluate the integration of medicinal plants into primary health care for preventing common illnesses.

Syllabus:

Unit 1: Understanding Biodiversity

- Definition and scope of biodiversity
- Importance of biodiversity for ecosystem health
- Types and levels of biodiversity
- Strategies for biodiversity conservation

Unit 2: Traditional Medicine and Medicinal Plants

- Historical perspectives on medicinal plant use
- Traditional healing systems and plant remedies
- Cultural significance of medicinal plants
- Integration of traditional medicine into modern healthcare

Unit 3: Ecological Role and Conservation of Medicinal Plants

- Medicinal plants in ecosystems
- Biodiversity hotspots and medicinal flora
- Conservation challenges and strategies
- Sustainable harvesting practices

Unit 4: Phytochemistry and Medicinal Properties

- Chemical composition of medicinal plants
- Pharmacological properties and applications
- Extraction and processing methods
- Quality control and standardization processes

Unit 5: Medicinal Plants in Primary Health Care

- Role of medicinal plants in preventing common illnesses
- Integration of medicinal plants into primary healthcare systems

Assessment:

1. Quizzes and assignments
2. Mid-term examination
3. Group project on a local medicinal plant and its traditional uses

Recommended Books

1. Máthé Ákos and Khan Irfan Ali (2022) Medicinal and Aromatic Plants of India Vol. 1. Springer. ISBN-13: 978-3030987008
2. Máthé Ákos and Khan Irfan Ali (2023) Medicinal and Aromatic Plants of India Vol. Springer. ISBN-13: 978-3031449130.
3. Rasheeduz Z. (2019) Medicinal Plants of India. CBS publishers and distributors pvt ltd. ISBN-13: 978-8123902777
4. Joshi M.C. (2019) Hand Book of Indian Medicinal Plants. Scientific Publishers. ISBN: 9789387913295

5. Warrier P. K. (1993) Indian Medicinal Plants. A Compendium of 500 Species · Volume 2. Orient Longman

****Note:**** The syllabus can be adapted based on the audience's academic background and course duration. Incorporating practical sessions, guest lectures, and field trips can enhance the learning experience.

ADD ON COURSE IN NUMERICAL ABILITY AND REASONING BY DEPARTMENT OF MATHS

COURSE OUTCOMES-

At the end of the course students will be able to demonstrate proficiency in reasoning by developing the ability to analyse, evaluate, and synthesize information critically. They will apply logical and deductive reasoning skills to solve complex problems, make informed decisions, and articulate well-reasoned arguments. Additionally, students will develop the capacity to recognize biases, identify fallacies, and construct sound arguments, fostering a foundation for effective and rational decision-making in various academic and real-world contexts.

SYLLABUS

UNIT I

1. Analogy
2. Syllogism
3. Coded equations

UNIT II

1. Classification
2. Blood Relation
3. Direction questions

UNIT III

1. Arithmetic Reasoning
2. Venn Diagram
3. Visual Reasoning

UNIT IV

1. Paper folding; unfolding
2. Alphabet test

St. Joseph's College for Women

B.Sc. Add on Course in Physics

Course: MATHEMATICAL METHODS IN PHYSICS

Credits: 01

Course Objective: To familiarize students with essential mathematical methods for solving advanced problems in theoretical physics.

Learning Outcomes:

Upon completion of the course, the student should be able:

- To use advanced mathematical methods and theories on various mathematical and physics problems.
- To develop the skill of problem-solving ability.
- Use Matrices to solve simultaneous equations
- Solve quantum mechanical problems using special functions and polynomials.

UNIT I: SPECIAL FUNCTIONS

Special Functions - Beta and Gamma functions and their properties. Solutions for Bessel, Legendre, Laguerre and Hermite Differential Equations.

UNIT II: ORDINARY DIFFERENTIAL EQUATIONS PROPERTIES

Generating function for legendary differential equation, Recurrence relation for legendary differential equation, Rodrigues 's formula for legendre's polynomial, Orthogonality of legendre's polynomial. generating function for Bessel's function, Recurrence relations and orthogonality.

UNIT III: MATRICES

Special Types of Matrices, Symmetric and Skew-symmetric Matrices, Hermitian and Skew-Hermitian Matrices, Orthogonal Matrices, Unitary Matrices

UNIT IV: PROPERTIES OF MATRICES

Properties, Characteristics, Equation, Determination of Eigen values and Eigen vectors, Properties, Statement and Proof of Cayley - Hamilton Theorem, Simple Problems, Inverse of Matrix by CH Theorem, Diagonalization of 2×2 Real Symmetric Matrices

Department of Zoology

Syllabus (Theory)

Unit- 1

- 1 Introduction to vermiculture and vermicompost.
- 2 Systematic position, Habit and Habitat of Earthworm.
- 3 External features, shape & size, colouration & distribution of earth worms.
- 4 Body segmentation.
- 5 Species of earthworm used in vermiculture.
- 6 Economic Importance (roles +ve and -ve)

Unit -2

- 1 Food and feeding habitats of the earth worms.
- 2 Digestive system of earthworm.
- 3 Reproduction in Earthworm
- 4 Respiration in Earthworm.

Unit- 3

- 1 Earthworm for animal feeds.
- 2 Casting of earthworm as a biofertilizer.
- 3 Requirements for vermiculture.
- 4 Vermicomposting materials and organic waste
- 5 Cattle dung plant product.

Unit - 4

- 1 Preliminary treatment of composting a material.
- 2 Vermicomposting material storage.
- 3 Preparation of vermiculture bed.
- 4 Maintenance of vermiculture bed.
- 5 Natural enemies and their control.

Unit -5

- 1 Composition of vermicompost and worms.
- 2 Harvesting vermicompost and worms.
- 3 Marketing of vermicompost and worms.
- 4 Marketing of seed worms.
- 5 Role of vermicompost as fertilizers in agriculture.

Syllabus (Practical)

Identification, classification and comment on

- 1) To study the external characters of earthworms.
- 2) Study of different species of earthworms.
- 3) Study of different vermiculture material.
- 4) Histological study of -
 - a) Gizzard
 - b) Testis
 - c) Ovary
 - d) Spematheca
 - e) Septal nephridia
- 5) Cattle dung
- 6) Plant product
- 7) Agricultural waste

After successful completion of the course the student would be able -

- 1) To cultivate skills of understanding the vermiculture.
- 2) To learn the techniques of composting in a limited space.
- 3) To develop technical skills on harvesting and management of vermicompost.
- 4) To understand the scope of vermicomposting as entrepreneurship.

Learning outcomes of the course-

- 1) Working process : Person may establish a small scale industry.
- 2) Professional knowledge : Basic facts process and principle applied .

General information and course structure

Sl.No. Broad Theory and Practical components to be covered	Duration (in Hrs)	Theory	Practical	Days
1.Waste materials:Classification,disposal techniques,their segregation &processing	2	1	1	1
2.Bed preparation for Anaerobic and aerobic composting and mixing of beds	4	2	2	2
3.Earthworm collection,identification and application on beds	10	5	5	5
4. Inspection of beds &watering	4	2	2	2
5.Vermicompost collection,Earthworms separation,Air drying of vermicompost,sieving & and storing	8	4	4	4
6.Vermi -wash production collection &processing technique,	4	2	2	2
Total	30	15	15	15

Duration : 30 hrs

Eligibility: 12+ and students pursuing undergraduation

Language : Hindi/English

Teaching mode : ppt, video and pdf notes

Assessment

The competency assessment will be done by the departmental assessors ensuring an impartial assessment. The assessment process through assessing bodies aims to test and certify the competency of the student .

Assessment guideline

Assessment will be evidence based comprising the following -

- Answer sheet for assessment
- Viva - voce
- Attendance and punctuality

