SKILL ENHANCEMENT COURSE(SEC)

SEMESTER-VI

(Effective from Session 2024-25)

(Batch: 2024-2027)

SAMBALPUR UNIVERSITY

JYOTI-VIHAR, BURLA, SAMBALPUR, ODISHA-768019

SKILL ENHANCEMENT COURSE(SEC)

SEMESTER-VI

LIFE SKILL EDUCATION

Credits: 3 Lecture: 45 Hour Full mark: 100

Subject Teacher: The classes will be assigned to the teacher/faculty competent to teach the course by the Principal.

Course Outcomes (COs):

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

COI: Identify career opportunities in consideration of their own potential and aspirations.

C02: Gain self-competency and confidence.

C03: Participate in simulated interview.

C04: Analyse the role of digital literacy in professional life.

C05: Develop interpersonal skills and adopt good leadership behaviour for self-empowerment and the empowerment of others.

C06: Demonstrate a set of practical skills such as time management, self-management, conflicts management, team leadership etc.

C07: Understand the importance of values in individual, social circles, career path and national life.

Course Contents

CO: Familiar with the concept of Life Skills.

Unit I: Introduction to Life Skills Education.

- Concept, need and objectives of life skills education.
- Recommendations of WHO and UNICEF over the years.
- Four Pillars of Education - Learning to Know, Learning to Do, Learning to Be, Learning to Live Together.

Unit II: Social Skills

CO: Communicate efficiently and develop good interpersonal skills. CO: Use social digital platforms efficiently.

- Communication skill-types of communication, barriers to communication, strategies for effective communication.

- Interpersonal skills-determinants, maintaining and sustaining a relationship, conflict resolution.

- Digital literacy and social media-digital ethics and cyber security.

Unit Ill: Life Skills for Self-Management and Career Planning

CO: Develop awareness about one 's own self and plan a career accordingly.

- Self-awareness-self-concept, self-esteem, time management and empathy.

- Emotional intelligence, social intelligence and spiritual intelligence.

- Choosing a career-sources of career information, preparation of resume, interview facing and group discussion.

Unit IV: Universal Human Values

CO: Understand the importance of values and develop values for life.

- Truth, love, compassion and non-violence.

- Constitutional values- justice and human rights.

- Understanding happiness and prosperity correctly- a critical appraisal of the current scenario.

Sample Questions

- What is meant by Life skills? (l Mark)

- Mention any two life skills as laid down by WHO. (2 Marks, Within 50 words)

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- Define Communication. Discuss strategies for effective communication. (5 Marks, Within 300 words)

- Critically reflect on Four Pillars of Education. (8 Marks, Within 500 to 800 words).

Mode of Course Transaction: Seminar, Team Teaching, Dialogue, Peer-Teaching, Collaborative and Cooperative Learning, Field Trip, Concept Mapping, Self-Learning.

Activities to do

Each student will be required to prepare and submit a report on any one of the following:

- Prepare a report on the implications of any two pillars of education in developing life skills education in India.
- Examine the opportunities and challenges in application of life skills education and write a report.
- Conduct a semi structured interview on parents exploring the challenges of parenting and life skills needed for effective parenting. Compare the gender difference of parenting.
- Conduct Case study on life history of great personalities who contributed towards universal values.

Suggested Readings

✓ Dahama OP., Bhatnagar O.P, (2005). Education and Communication for Development (2nd Edn.). New Delhi: oxford & BH Publishing co. Pvt. Ltd.

✓ Hendricks, P.A. Developing Youth Curriculum Using the Targeting Life Skills Model: Incorporating Developmentally Appropriate Learning Opportunities to Assess Impact of Life Skill Development (Iowa State Extension Publication 4H-137A, 1998). Ames, IA: Iowa State University.

✓ Konar, N. (2011). Communication Skillsfor Professionals (Second Edition). New Delhi: PHI Learning Private Limited.

✓ Mangal, SK., and Mangal, U. (2014). Essentials ofEducational Technology, PHI Learning Pvt. Ltd. 3. ✓ Sampath, K, A., Panneerselvam, S.S. (2007). Introduction to Educational Technology. Sterling Publisher Pvt. Ltd.

Verma, S. Development ofLife Skill-Il, Vikas Publishing House.

QUANTITATIVE AND LOGICAL THINKING

Credits: 3 **Lecture: 45 Hour** **Full mark: 100**

Subject Teacher: The classes will be assigned to the teacher/faculty competent to teach the course by the Principal.

Course Objectives

1. To select and apply appropriate methods to solve real world problems;
2. To interpret quantitative model and understand a variety of methods of communicating them;
3. To improve decision making skills, problem solving skills and setting goals.

Course Outcomes

After completion of the course, learners will be able to

CO1: To apply appropriate methods to solve real world problems,

CO2: To understand various methods to solve the difficulties and communicating thereafter, CO3: To draw conclusion and / or make decisions based on analysis and critique of quantitative information using proportional reasoning.

Unit –I:

Whole numbers, Integers, Rational and irrational numbers, Fractions, Square roots and Cube roots, Surds and Indices, Problems on Numbers, Divisibility; Steps of Long Division Method for Finding Square Roots.

Unit –II:

Basic concepts, Different formulae of Percentage, Profit and Loss, Discount, Simple interest, Ratio and Proportion, Mixture, Time and Work, Pipes and Cisterns, Basic concepts of Time, Distance and Speed; relationship among them

Unit –III:

Concept of Angles, Different Polygons like triangles, rectangle, square, right-angled triangle, Pythagorean Theorem, Perimeter and Area of Triangles, Rectangles, Circles.

Unit-IV:

Analogy basing on kinds of relationships, Simple Analogy; Pattern and Series of Numbers, Letters,

Figures. Coding-Decoding of Numbers, Letters, Symbols (Figures), Blood Relations. Logical Statements –

Two premise argument, more than two premise argument using connectives; Venn Diagrams, Mirror Images, Problems on Cubes and Dices.

Suggested Readings

- *Skill Enhancement Compulsory Course-II – Quantitative and Logical Thinking (Special Course) – Odisha*
- *State Higher Education Council, Bhubaneswar (The recommended Books are to be decided by the Board of Studies)*

INCOM TAX AND E -RETURN FILING

Credits: 3 **Lecture: 45 Hour** **Full mark: 100**

Subject Teacher: The classes will be assigned to the teacher/faculty competent to teach the course by the Principal

Course Objectives

To equip students with the practical skills required for filing of returns under Income Tax.

Course Outcomes

After completing the course, the student shall be able to:

CO1: know the difference between e-filing and regular filing of Income tax returns and understand the circumstances when e-filling is mandatory.

CO2: understand the basic process of computing taxable income and tax liability and know about various types of income tax return forms.

CO3: understand the concept of advance payment of tax and tax deduction at source and develop the ability of e-filing of TDS returns.

CO4: become aware of the basic framework and structure of GST, including the meaning of input tax credit and the process of its utilization.

CO5: know about various types of GST returns and their filing.

Unit 1: Conceptual Framework: e-Filing

Meaning of e-filing; difference between e-filing and regular filing of returns; benefits and limitations of e-filing; types of e-filing; e-filing process; relevant notifications.

Unit 2: Income Tax and e-Filing of ITRs

Introduction to income tax – basic terminology; types of assesse; income taxable under different heads; basics of computation of total income and tax liability; deductions available from gross total income; PAN card; due date of filing of income tax return.

Unit 3: TDS and e-Filing of TDS Returns

Introduction to the concept of TDS; provisions in brief relating to advance payment of tax; schedule for deposit of TDS; schedule for submission of TDS returns; prescribed forms for filing of TDS returns; exemption from TDS – Form 13, 15G, 15H; Practical workshop on e-filing of TDS returns.

Unit 4: e-Filing of ITR

Instructions for filling out form ITR-1, ITR-2, ITR-3, ITR-4, ITR-4S, ITR-5, ITR-6. Introduction to Income Tax Portal; preparation of electronic return (practical workshops)

ORGANIC FARMING

Credits: 3 **Lecture: 45 Hour** **Full mark: 100**

Subject Teacher: The classes will be assigned to the teacher/faculty competent to teach the course by the Principal

Objectives:

1. To understand about organic farming and its significance in modern day of farming

2. To learn the characteristics features of organic farming and its difference from traditional method

of farming.

3. To learn about government promotions and beneficial role of organic farming towards farmers.

Outcomes:

After the completion of the course the students are expected to have

1. Knowledge of organic farming and its need and prospect in modern day farming.

2. Learn about the organic farming and its relevance with the sustainability, biodiversity and

ecological balance.

3. To get idea on the government policies on organic farming

Unit I:

LO: The students will learn about the concept of organic farming and its relevance with modern day farming.

Definition, need and scope of organic farming, Relevance to modern agriculture.

Difference between organic and conventional farming practices.

Modern farming practices – Permaculture, biodynamic farming.

Organic farming – perspective in Odisha and India. Global status of organic farming.

Future prospects of organic farming - advantages and barriers.

Unit II:

LO: Learners will learn about government initiative and promotions. They will learn about organic fertilizers used in organic farming.

Governmental initiative on promotion of organic farming in India - policies and success stories.

Marketing and export potential of organic products – impact on national economy

Organic nutrient sources and their fortification, Nutrient management in organic farming

Green Organic manures – methods of preparation of green manures, impact of green. manures towards organic farming. Biofertilisers – types, methods of application – benefits and limitations

Unit III:

LO: The students will learn about the methods of controlling pest and diseases during organic farming. Also, they will learn about bioformulations for better organic farming.

Disease management, weed management and insect management under organic farming. Use of biological methods for pest and disease management.

Use of plant-based formulations for disease management – Use of neem extracts, seed kernels and other natural non-chemical-based formulation for management of diseases and pest for organic farming.

Text Books:

✓ *Maliwal, P. L. (2020). Principles of Organic Farming: Textbook. Scientific Publishers.*

Reference Books:

✓ *Somasundaram, E., Nandhini, D. U., & Meyyappan, M. (2021). Principles of organic farming. CRC Press.*

✓ *Das, S., Chatterjee, A., & Pal, T. K. (2020). Organic farming in India: a vision towards a healthy nation. Food Quality and Safety, 4(2), 69-76.*

✓ *Dabbert, S., Haring, A. M., & Zanoli, R. (2004). Organic farming: policies and prospects. Zed books.*

BIOFERTILIZER

Credits: 3 **Lecture: 45 Hour** **Full mark: 100**

Subject Teacher: The classes will be assigned to the teacher/faculty competent to teach the course by the Principal

Objectives:

1. To understand the methods of isolation, propagation, and application of different bacterial, fungal

and algal biofertilizers.

2. To learn the characteristics of strains of importance for use as biofertilizers and the methods of

their cultivation, processing and application.

3. To inculcate the knowledge for understanding the concept and procedure of organic farming for

sustainable agroecosystem.

4. To learn the processing and recycling methods of biodegradable organic wastes of diverse origin

and their integration with biofertilizers.

5. To learn the techniques and application of composting, vermin-composting and reuse of complex

organic maters and method of their agricultural application.

Outcomes:

After the completion of the course the students are expected to have

1. Knowledge of biofertilizers belonging to different microbial groups and their association with crop plants.

2. Skill on isolation, culture, mass propagation and harvesting, processing, storage and marketing of various types of biofertilizers.

3. Detailed understanding on the techniques and benefits of organic farming following green

manuring and organic manure application.

4. Knowledge on the nutritional advantage of the application of biofertilizers and the field doses of various biofertilizers for nitrogen and phosphorus nutrition.

5. Skill to properly compost the organic wastes of various complexity and use of the compost on crop field for enhanced yield.

Unit I:

LO: Awareness about the microbial groups, preparation and types of biofertilizers

General account about the microbes used as biofertilizer– Rhizobium – isolation, identification, mass multiplication, carrier-based inoculants, Actinorrhizal symbiosis. *Azospirillum*: isolation and mass multiplication, *Azotobacter*: classification, characteristics – crop response to Azotobacter inoculums, maintenance and mass multiplication.

Unit II:

LO: Knowledge on isolation, culture, harvesting, processing, storage and marketing of biofertilizers

Cyanobacteria (blue green algae), *Azolla* and *Anabaena azollae* association, nitrogen fixation, factors affecting growth, blue green algae and *Azolla* in rice cultivation.

Unit III:

LO: Understanding the nutritional advantage of various biofertilizers

Mycorrhizal association, types of mycorrhizal association, taxonomy, occurrence and distribution, phosphorus nutrition, growth and yield – colonization of VAM – isolation andinoculum production of VAM, and its influence on growth and yield of crop plants.

Text Books:

✓ *Mahendra Rai, (2006). Hand book of Microbial Bio-fertilizers. CRC Press.*

Reference Books:

✓ *Dubey, R.C., 2005 A Text book of Biotechnology S. Chand & Co, New Delhi.*

✓ *Kumaresan, V. 2005, Biotechnology, Saras Publications, New Delhi.*

✓ *John Jothi Prakash, E. 2004. Outlines of Plant Biotechnology. Emkay Publication,New Delhi.*

✓ *Sathe, T.V. 2004 Vermiculture and Organic Farming. Daya publishers.*

✓ *Subha Rao, N.S. 2000, Soil Microbiology, Oxford & IBH Publishers, New -Delhi.*

✓ *Vayas, S.C, Vayas, S. and Modi, H.A. 1998 Bio-fertilizers and organic. Farming Akta Prakashan, Nadiad*

✓ *Pravin Chandra Dwivedi. (2008). Biofertilizers. Pointer Publishers.*

TYPE SETTING IN LATEX

Credits: 3 **Lecture: 45 Hour** **Full mark: 100**

Subject Teacher: The classes will be assigned to the teacher/faculty competent to teach the course by the Principal

Objective: The objective of this course is to familiarize students how to write research papers and books using the book format process of type setting by Latex, how to prepare for document presentation

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

COI: handle different types of documents, organize documents into different sections, subsections, etc., learn formatting pages (margins, header, footer, orientation).

C02: learn formatting text and writing of complex mathematical formulae, tables and images.

C03: learn cross-referencing, bibliography writing, indexing, read error messages as and when required, learn to create presentations using Beamer.

This is a practical paper. Students will be externally examined on their expertise on following aspects of typing as per the rules of the university/affiliated institutions:

Installation of Latex and different IDES, Creating the first document using Latex, organizing content into sections using article and book class of Latex, formatting the page by setting margins, paper size, use package, customizing header and footer, changing the page orientation, dividing the document into multiple columns, reading different types of error messages.

Formatting text (styles, size and alignment), adding colors to text and entire page, and adding bullets and numbered items, Creating basic tables, matrices and arrays, adding simple and dashed borders, merging rows and columns, and handling situations where a table exceeds the size of a page, adding an image, exploring different properties like rotate, scale, etc., writing equations in different formats, creating various form of mathematics documents, create items, add cross-referencing (refer to sections, table, images), add bibliography (references), and create back index, introduction to creating slides, adding frames, dividing the slide into multiple columns, adding different blocks, etc.

BOOK RECOMMENDED:

l. Latex Beginner's Guide: Create visually appealing texts, articles, and books for business and science using Latex, 2nd Edition, Packet Publishing, 2021.

2. Firuza Karmali Aibara: A short introduction to Latex: A book for beginners, Create space Independent Publishing Platform, 2019.
3. Dilip Datta: Latex in 24 Hours: A Practical Guide for Scientific Writing, 1st ed., Springer, 2017.
4. Suggestive digital platforms web links: NPTEL/SWAYAWMOOCS,
5. e-Learning Source http://ndl.iitkgp.ac.in; http•.//ocw.mit.edu; http://mathforum.org