SWAYAM Courses: At a Glance

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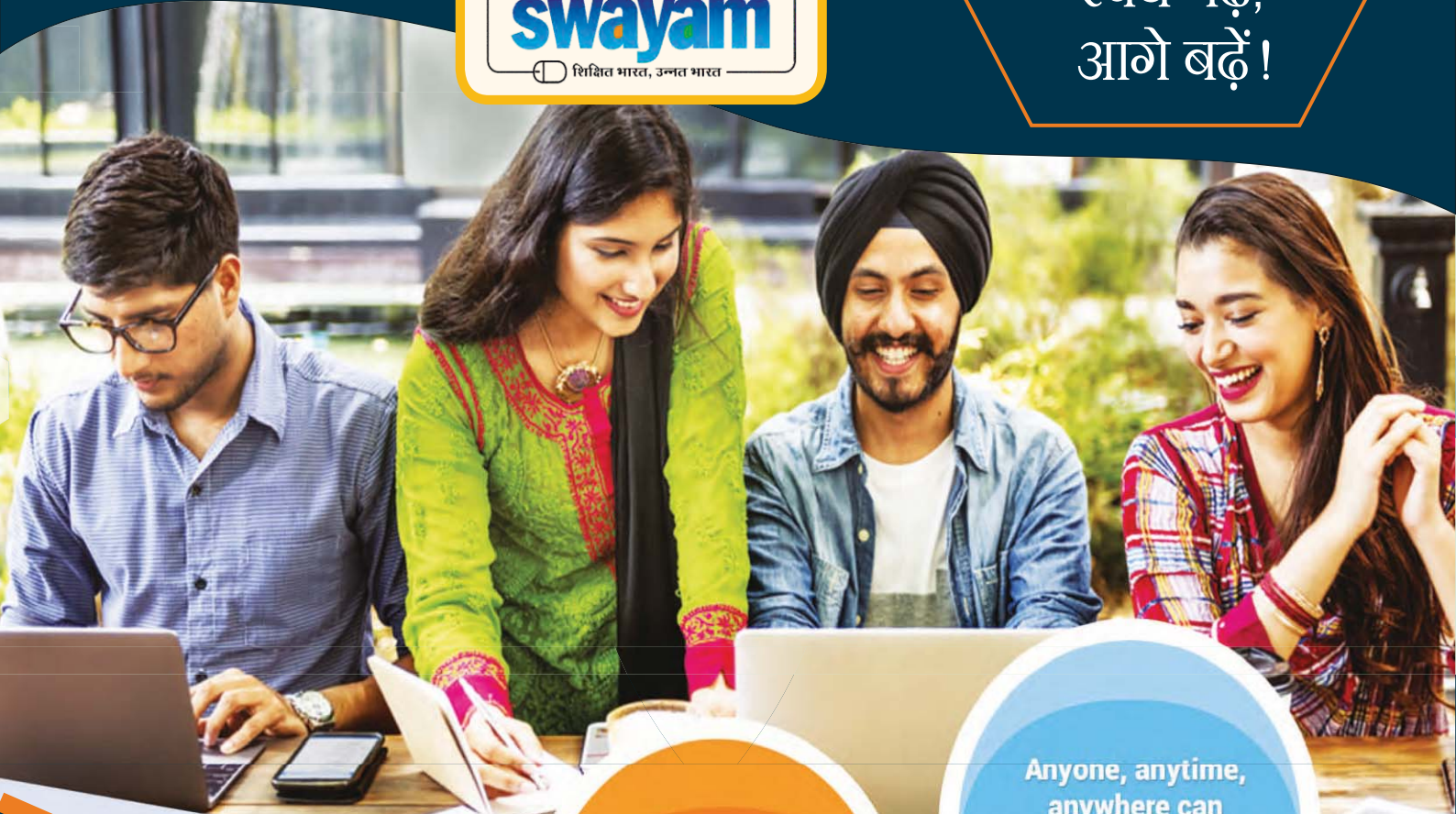
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Ministry of Human Resource Development
Government of India

सत्यमेव जयते

July 2018

Message of the Chairman

The Indian higher education system is one of the oldest and largest in the world with 903 universities including Instituions of National Importance, 41, 012 colleges, 3.66 crore students and 12.84 lakh teachers. This massification of higher education brings along with it many issues which confront the higher education of our country today like, the issues of access, equity, relevance, quality, management and financing.

The ICT plays a major role in addressing these issues. In this context, Massive Open online courses are very successfully bridging the digital divide as through these courses quality education can be brought at the doorstep of every learner at virtually no cost. I congratulate the Ministry of Human Resource Development for this noble initiative which will bring a marked improvement in the quality of education being imparted in our country.The project would also help the students and teachers to update their knowledge and skills especially for those located in rural/backward/remote areas and would help the nation move towards an information-rich society.

I congratulate, Prof Rajnish Jain, Secretary, UGC, Dr(Mrs) Pankaj Mittal, Additional Secretary, UGC and her team in bringing out this document which will be very handy information booklet for our Vice Chancellors.

Wishing you all the best.

Prof. D P Singh
Chairman, UGC

The phenomenal growth of ICT in the education system has had a tremendous impact globally. India has been quick enough to leverage technology for teaching learning processes as ICT has facilitated the accessibility to education andpromoting quality teaching and learning to learners of all age groups across the length and breadth of the country. Taking cognizance of such advancements , the Ministry of Human Resource Development, Government of India launched SWAYAM (Study Webs ofActive Learning for Young Aspiring Minds), an indigenously developed platform aimed at providing learningopportunities to the learners through MOOCs (Massive Open Online Course) free of cost in a structured manner.

MHRD has identified nine National Coordinators for developing MOOCs from School to PG level on the platform , namely-NCERT for school education from 9th to 12th; NIOS for out of school children from 9th to 12th; Consortium for Educational Communication(CEC), an IUC of UGC, for Non-technology UG programmes; UGC for Non-technology PG programmes; IGNOU for Diploma and Certificate programmes; NPTEL for Technical/ Engineering UG & PG degree programmes; IIM for management programmes, NITTR, Chennai for Teacher Training programmes and AICTE for self paced programmes.

The MOOCS courses on Swayam being run by these National Coordinators (except for NPTEL) in the coming semester beginning from July, 2018 arecompiled in this document for easy reference of the Vice Chancellors and academicians.

I compliment my colleagues, Dr(Mrs) Pankaj Mittal, Additional Secretary, UGC and Dr Diksha Rajput, Publication Officer and her team in editing and compiling this document which will work as a ready reckoner for our users.

My Good Wishes for all.

Prof Rajnish Jain
Secretary, UGC

The MOOCs on the SWAYAM are high quality, curriculum-based, interactive content in different subjects across disciplines of social sciences, arts, fine arts, humanities, natural & mathematical sciences, linguistics, languages, technology, management, teacher training and skill sector. These courses are developed by the best faculty of the country carefully chosen from various educational institutions across the country from Secondary till Post-Graduation level. The basic philosophy of MOOCS on SWAYAM is free learning for Any one, Any time, Any where (AAA) with the facility of credit transfer for upto 20% of the courses in a programme.

The MOOCS on SWAYAM follow a Four Quadrant Approach comprising of Quadrant-I - e-Tutorial, which contains Video and Audio Content in an organised form, Animation, Simulations, video demonstrations, Virtual Labs, etc. , Quadrant-II - e-Content, which contains PDF, Text, e-Books, illustrations, video demonstrations, documents and Interactive simulations; Quadrant-III - Web Resources, Open source Content on Internet, Case Studies, books including e-books, research papers & journals, Articles, etc. and Quadrant-IV - Self-Assessment, which contains Problems and Solutions, which could be in the form of Multiple Choice Questions, Fill in the blanks, Matching Questions, Short Answer Questions, Long Answer Questions, Quizzes, Assignments and solutions, Discussion forum topics and setting up the FAQs, Clarifications on general misconceptions etc.

This document SWAYAM Courses : At a Glance " is a compilation of the Courses developed by the Course Coordinators/Instructors of eight National Coordinators and gives a bird's eye view of the Course objectives, learning outcomes, course duration, credits and profile of the course coordinator for the learner. It is hoped that this document will enable learners and institutions to make informed choices about the MOOCS courses to be pursued in the coming semester, commencing from July, 2018.

The compilation and production of this document would not have been possible without the active support of my colleagues in UGC, Dr Diksha Rajput, Mr Abhishek Anand and in INFLIBNET, Dr Jagdish Arora and Dr Abhishek Kumar. I am grateful to them for their support.

Wishing you a happy learning.

Dr(Mrs) Pankaj Mittal
Additional Secretary, UGC

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Diploma & Certificate Courses

MHRD

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Diploma & Certificate Courses

Contents

LIBRARY AUTOMATION AND DIGITISATION

PROF. UMA KANJILAL

Professor and Head Faculty of Library and Information Science and presently Director of Inter University Consortium of Technology Enabled Flexible Education (IUC- TEFED) in the Indira Gandhi National Open University (IGNOU), New Delhi

TYPE OF COURSE	:	Certificate
INTENDED AUDIENCE	:	Certificate

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COURSE DURATION	:	6 months (July 1, 2018 to Dec 31, 2018)
EXAM DATE	:	December 2018
NO OF CREDITS	:	4

PRE-REQUISITES : Passed 10 + 2 with Library & Information Science qualification atleast at Certificate level.

OBJECTIVE OF COURSE

This course introduces the concepts of library automation and digitisation. It aims to train the learners on open source library automation software Koha and digital library software DSpace.

LEARNING OUTCOME

After going through this course the learner will get a thorough understanding of an automated library system, automation processes and the use of open source Integrated Library System software like Koha. They will also know about different types of resources available in Libraries and their preservation aspects. They will get familiarised with the digitisation process and learn to use Open Source DSpace software for developing digital libraries and repositories.
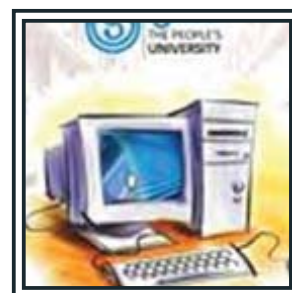
COURSE PLAN

Block 1: Library Automation Packages

- Unit 1: Introduction

- Unit 2: Acquisition and Cataloguing

- Unit 3: Serials Control

- Unit 4: Library Services

Block 2: Media Resources

- Unit 6: Media Resources for Libraries and their Preservation

- Unit 7: Equipment and their Maintenance

Block 3: Digitisation of Media Resources

- Unit 8: Digitisation Concept and Need

- Unit 9: Methods and Equipment

ABOUT INSTRUCTOR

Prof. Uma Kanjilal has more than 28 years of experience in the Open and Distance Learning System. She is one of the National Coordinators of SWAYAM (India MOOCs) and SWAYAM PRABHA. She is a PI of the National Virtual Library of India Project of Ministry of Culture. Her specializations include e-learning, multimedia courseware development, ICT applications in Libraries and Digital Libraries. She was a Fulbright Scholar in University of Illinois, Urbana Champaign in 1999-2000 where she worked on Multimedia courseware development.

DR. V. V. SUBRAHMANYAM

Associate Professor and Director in the School of Computer and Information Sciences (SOCIS), IGNOU, New Delhi.

TYPE OF COURSE	:	Certificate
INTENDED AUDIENCE	:	Certificate

COURSE DURATION	:	12 weeks (July 1, 2018 to Dec 31, 2018)
EXAM DATE	:	December 2018
NO OF CREDITS	:	4

PRE-REQUISITES : Passed 10 + 2 with Library & Information Science qualification at least at Certificate level.

OBJECTIVE OF COURSE

By the end of the course, students will be able to: 1. Understand the Database concepts, elements of DBMS and Database Models 2. Review and articulate database functions and data modelling in LIS environment 3. Describe various File Organisation Techniques and Search Strategies 4. Understand the Relational Model and able to create conceptual design diagrams using Entity Relationship Modelling 5. Identify the concerns of Indexing 6. Use Structured Query Language to retrieve and manage information 7. Work with MySQL – RDBMS, executing all of its SQL commands 8. Identify basic concerns regarding Database Recovery, Transaction Management, Concurrency control and Deadlocks. 9. Access and use WINISIS 10. Understand the emerging trends namely Open Access Database Services, Text Retrieval Engines, Multilingual Text Retrieval, Data Mashup and Linked Open Data for Libraries.

COURSE PLAN

1. DBMS –Introductory Concepts
2. Elements of DBMS
3. Types of Databases and Data Models
4. Relational Databases and Overview of DB Design
5. Various Key Constraints in RDBMS
6. Anomalies and Normalization
7. File Organization
8. Search Strategy
9. Content Organisation and Formats
10. Indexing and Indexing Tools
11. Types of SQL Commands and Introduction to MySQL
12. MySQL Commands
13. Database Recovery
14. Transaction Management, Concurrency Control and Deadlock
15. Textual DBMS Major features
16. CDS/ISIS for Windows An Introduction
17. Use of Content Designators in WINISIS
18. Common Communication Format (CCF) in WINISIS
19. Steps in Developing Databases in WINISIS
20. Steps in WINISIS: FDT and Worksheet
21. Steps in WINISIS: Pickup Lists in Worksheet
22. Steps in WINISIS: Basic Formatting Language
23. Steps in WINISIS: Advanced Formatting Language
24. Steps in WINISIS: Field Selection Table (FST)
25. Data Entry and Data Export/Import in WINISIS
26. Searching and Browsing in WINISIS
27. Utilities in WINISIS
28. CDS/ISIS Software Family
29. Textual Databases Evolution and Evaluation
30. Introduction to Open Access Database Services
31. Text Retrieval Engines
32. Multilingual Text Retrieval
33. Data Mashup
34. Linked Open Data for Libraries

ABOUT INSTRUCTOR

Dr. V. V. Subrahmanyam received his *PhD(Computer Science)* from Jamia Milia Islamia (Central University), New Delhi, *M.Tech* (Computer Science and Technology) from Andhra University, Visakhapatnam and *B.Tech* (Computer Science and Engineering) from Nagarjuna University, Guntur. He is faculty in School of Computer and Information Sciences (SOCIS), IGNOU since 1998 and he has over 19+ years of research and teaching *experience.*

PROF. JAIDEEP SHARMA
Professor Library and Information Science, IGNOU, New Delhi

TYPE OF COURSE	: Certificate	**COURSE DURATION** :	12 weeks (July 1, 2018 to Dec 31, 2018)
INTENDED AUDIENCE :	Certificate	**EXAM DATE** :	December 2018
		NO OF CREDITS :	4

PRE-REQUISITES : Passed 10 + 2

OBJECTIVE OF COURSE

After going through the Course, the learners will be able to: Appreciate the need and purpose of cataloguing and classification in a library; Understand the process of cataloguing and classification; Know the different types and schemes of classification; Assign class numbers to documents using DDC; Know the different types of catalogues; Prepare catalogue entries using AACR2R; File entries in a catalogue knowing the different rules for filing; and Shelve books and carry out shelf rectification in a library

LEARNING OUTCOME

After attending this course, the learner will be able to understand the significance of classification and cataloguing in a library. He will be able to classify and catalogue documents using DDC and AACR- 2R. He will also be able to file entries and shelve books using standard schemes.

COURSE PLAN

Block 1: Classification Unit 1: Basics of Classification Unit 2: Classifying Documents using DDC Block 2: Cataloguing Unit 3: Basics of Cataloguing Unit4: Cataloguing Documents using AACR-2 Block 3: Filing and Shelving Unit 5: Filing Rules Unit 6: Shelving Course- 3 Information Sources and Library Services(BLII-013) Block 1: Information Sources and their use Unit1: Categories of Information sources Unit 2: Types of Information Sources Block 2: Library Services Unit 3: Circulation Services Unit 4: Reference Service Unit5: Awareness Services Unit 6: User Orientation

ABOUT INSTRUCTOR

Prof. Jaideep Sharma is a professor in the Faculty of Library and Information Science (LIS). He has a prior experience of working in the face-to-face mode of teaching for 14 years before joining IGNOU in the year 2003. Prof. Sharma has a doctoral degree in the area of Professional Competencies and Education for LIS in India. His area of specialization is Information Processing and Retrieval. Currently, he is also working as University librarian of IGNOU.

DR. ARCHANA SHUKLA
Assistant Professor, Library and Information Science, IGNOU

TYPE OF COURSE   : Certificate
INTENDED AUDIENCE : Certificate

COURSE DURATION : 12 weeks (July 1, 2018 to Dec 31, 2018)
EXAM DATE   : December 2018
NO OF CREDITS   : 4

PRE-REQUISITES   : Passed 10 + 2

OBJECTIVE OF COURSE

The course deals with information sources and library services. It gives detailed information about categories of information sources and how to evaluate them.

LEARNING OUTCOME

After going through this course, you will be able to:
•Explain various types of information sources.
•Categorise them based on different criteria.
•Identify the different types of reference and information sources.
•Understand the basis characteristics and uses of these sources.
•Know about both print and electronic information sources.
•Describe the different types of services provided by Library and Information Centres.

Information Sources and Library Services
Dr. Archana Shukla
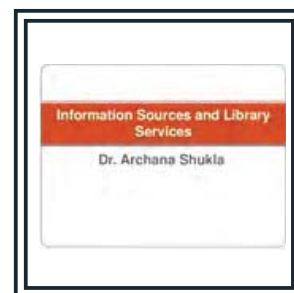
COURSE PLAN

BLOCK 1 : LIBRARIES: BASICS AND CONTEXTS
Unit 1 : Role of Libraries in Society
Unit 2 : Types of Libraries and their Functions
Unit 3 : Functional Units and Operational Aspects
Unit 4 : Library Staff: Role and Responsibilities
BLOCK 2 : LIBRARY ROUTINES
Unit 5 : Document Selection and Acquisition
Unit 6 : Physical Processing
Unit 7 : Library Records
Unit 8 : Library Maintenance

ABOUT INSTRUCTOR

Dr. Archana Shukla, Reader Faculty of Library and Information Science, School of Social Sciences, IGNOU, new Delhi.

DR. SHACHI SHAH
Associate Professor in the School of Inter-disciplinary and Transdisciplinary Studies at IGNOU, New Delhi.

TYPE OF COURSE	: Certificate	**COURSE DURATION** :	12 weeks (July 1, 2018 to Dec 31, 2018)
INTENDED AUDIENCE :	Certificate	**EXAM DATE** :	December 2018
		NO OF CREDITS :	4

OBJECTIVE OF COURSE

This course provides an understanding of the concept and principle of biodiversity science. The course provides detailed information on the value and importance of biodiversity, causes as well as current crisis, and consequences of biodiversity loss. The course provides a conceptual understanding of various means of conservation, restoration and sustainable utilization of biodiversity which can provide viable solutions to a range of societal challenges and provides an effective tool to bridge the knowledge gap for sustainable management of biodiversity. The course also explores the linkages between biodiversity conservation, ecosystem services, climate change and sustainable livelihood. The course will also provide insights into current challenges as well as opportunities in the context of various international cooperation and national level programmes and legislative framework for biodiversity conservation. The course also will explore the Inter-linkages of biodiversity and sustainable development goals and the role of biodiversity in supporting the achievement of the Sustainable Development Goals.

LEARNING OUTCOME

- To understand the origin of Biodiversity, its values and importance
- To understand the extent of biodiversity threats causes as well as current crisis, and consequences of biodiversity loss
- To assess the linkages between global biodiversity loss and ecosystem services, food security and livelihood in the changing climate
- To provide a conceptual understanding of various means of conservation, restoration and sustainable utilization of biodiversity
- To provide international cooperation and legislative framework for biodiversity conservation
- To explore Inter-linkages of biodiversity and sustainable development goals and the role of biodiversity in supporting the achievement of the Sustainable Development Goals

COURSE PLAN

PRELUDE TO BIODIVERSITY Origin of species, Basic concept of Biodiversity, Value of biodiversity, Ecosystem Services, Biodiversity in India, Forest Biodiversity, Wetland Biodiversity, Extinction of species. GENETIC RESOURCES Plant genetic resources, Centres of origin, Agrobiodiversity, Crop Domestication, Animal genetic resources, Fish genetic Resources, Germplasm characterization and evaluation, Food security. DRIVERS OF BIODIVERSITY LOSS Direct Drivers of biodiversity loss, Biodiversity hotspots, Climate change and Invasive species as a threat to biodiversity, Threats to biodiversity hotspots in India, Consequences of biodiversity loss. BIODIVERSITY CONSERVATION AND SUSTAINABLE MANAGEMENT Conservation Biology, Germplasm Conservation, In situ and Ex situ conservation, Protected Areas, Eecosystem Approach for Sustainable management, Role of traditional Knowledge in Biodiversity Conservation, Community based ecosystem conservation, Gender and Biodiversity Conservation. SUSTAINABLE INITIATIVES International and National instruments to conserve biological diversity, Convention of Biological Diversity, Millennium Developmental Goals, National Biodiversity Act 2002, Governance of biodiversity in India, BIODIVERSITY AND SUSTINABLE DEVELOPMENT GOALS Inter-linkages of biodiversity and sustainable development goals and the role of biodiversity in supporting the achievement of the Sustainable Development Goals

ABOUT INSTRUCTOR

Dr. Shachi Shah is Associate Professor in the School of Inter-disciplinary and Transdisciplinary Studies at IGNOU, New Delhi. She attained her Master's in Environmental Science and Ph.D. in Environmental Science from G.B. Pant University of Agriculture and Technology, Pantnagar. She was a Post-Doctoral Research Fellow at G.B. Pant National Institute of Himalayan Environment & Sustainable Development, Almora, India from 2003 to 2004. In 2004, she joined College of Forestry and Hill Agriculture, G.B. Pant University of Agriculture and Technology, Pantnagar as Assistant Professor (Environmental Science). As a faculty member of G.B. Pant University during 2004-11, she taught many courses at graduate level and worked on diversity and biotechnological application of plant growth promoting rhizobacteria of Himalayan Region. She also serves on the Editorial boards of Journal of Environment and Ecology and Indian Journal of Hill Agriculture and reviewer for a number of other National and International journals.

PROF. M. K. SALOOJA
Professor & Director, School of Agriculture, Indira Gandhi National Open University IGNOU, New Delhi

TYPE OF COURSE	: Diploma	**COURSE DURATION** :	12 weeks (July 9, 2018 to Dec 31, 2018)
INTENDED AUDIENCE :	Diploma	**EXAM DATE** :	December 2018
		NO OF CREDITS :	4

PRE-REQUISITES : Graduation/ Post Graduation in Science with Chemistry/ Bio-chemistry or Microbiology as one of the subjects.

OBJECTIVE OF COURSE

The objective of Course "Food Laws and Standards"   is to explain participating fellows with the basic aspects of national and international food laws and standards. The course has four major components – (a) Indian Food Regulatory Regime; (b) Global Scenario; (c) Export and Import Laws and (d) Regulations and Other Laws and Standards.

LEARNING OUTCOME

• Knowledge on basic aspects of national and international food laws and standards.

COURSE PLAN

Block-1: Indian Food Regulatory Regime
Unit-1 Prevention of Foods Adulteration Act Rules
Unit-2 Foods Safety and Quality Requirements
Unit-3 Foods Safety and Standard Act, 2006
Unit-4 Essential Commodities Act, 1955

Block-2: Global Scenario
Unit-5 Codex Alimentarious Commission (CAC)
Unit-6 WTO Implications
Unit-7 Other International Standards Setting Bodies (e.g. ISO, OIE, IPPC)

Block-3: Export & Import Laws and Regulations
Unit-8 FTDR Act, 1992 and Foreign Trade Policy
Unit-9 Export (Quality Control and Inspection) Act, 1963
Unit-10 Export Regulations and Promotion Bodies
Unit-11 Plant and Animal Quarantine
Unit 12 Customs Act and Import Control Regulations

Block-4: Export & Import Laws and Regulations

Unit-13 Other Laws Related to Food Products

Unit-14 Voluntary National Standards: BIS and AGMARK

Unit-15 National Agencies for Implementation of International Food Laws and Standards Unit-16 Food Labelling

ABOUT INSTRUCTOR

Academic experience of more than 33 years in the disciplines of Dairy Technology, Food Safety and Quality Management and Vocational Education. A Dairy Technologist by profession from the National Dairy Research Institute and set to the teaching profession as Assistant Professor in the Dairy Science College, Udaipur. Diversified into educational planning and vocational education by serving as Senior Research Officer in the Planning Commission and Reader in the NCERT, respectively. IGNOU's experience in the open and distance learning is adding new vista to the academic profession. At present, Programme Coordinator for the following IGNOU programmes: 1. Diploma in Dairy Technology; 2. Diploma in Value Added Products from Fruits &; Vegetables; 3. Post Graduate Diploma in Food Safety & Quality Management; and 4. Ph.D. in Dairy Science & Technology. Awarded with Commonwealth Scholarship for Post doctorate at CSIRO, Australia and Jawaharlal Nehru Award of ICAR. Always willing to learn.

PROF. M. K. SALOOJA
Professor & Director, School of Agriculture, Indira Gandhi National Open University IGNOU, New Delhi

TYPE OF COURSE	: Diploma	**COURSE DURATION** :	12 weeks (July 9, 2018 to Dec 31, 2018)
INTENDED AUDIENCE :	Diploma	**EXAM DATE** :	December 2018
		NO OF CREDITS :	4

PRE-REQUISITES : Graduation/ Post Graduation in Science with Chemistry/ Bio-chemistry or Microbiology as one of the subjects.

OBJECTIVE OF COURSE

The objective of the Course is to explain participating fellows with the basic composition, standard specification, method of manufacturing, packaging and defects during manufacturing and storage of these products. The course has four major components – (a) Fermented Products; (b) Cheese; (c) Frozen Dairy Products and (d) Dairy By-products. It shall impart knowledge and technical proficiency in manufacture of these products. It shall also facilitate Good Manufacturing Practices in the dairy sector.

LEARNING OUTCOME

Knowledge on basic aspects of basic composition, standard specification, method of manufacturing, packaging and defects during manufacturing and storage of fermented, cheese, ice-cream and by-products.

COURSE PLAN

Technology of Fermented, Cheese, Ice-cream and By- products
Fermented Dairy Products Manufacture of Shrikhand and yogurt
Making of Yogurt
Fermented, Commercial Product of Dahi, Lassi and Chhachh
Commercial Production of Shrikhand, Mishti dahi and Yougurt
Fermented Dairy Product Manufacturing of Indigenous Product
Fermented Dairy Products Packaging and Sorage
An Introduction to Milk By- Products
Casein By- Products
Condensed Whey and Whey Powder
Application of Membrane Processing in Dairy Industry
Ice- Cream and Frozen Desserts: An Introduction
Calculation of Ice Cream Mix and Commercial Manufacturing
Cheese Starter Cultures
Microbiology of cheese

ABOUT INSTRUCTOR

Academic experience of more than 33 years in the disciplines of Dairy Technology, Food Safety and Quality Management and Vocational Education. A Dairy Technologist by profession from the National Dairy Research Institute and set to the teaching profession as Assistant Professor in the Dairy Science College, Udaipur. Diversified into educational planning and vocational education by serving as Senior Research Officer in the Planning Commission and Reader in the NCERT, respectively. IGNOU's experience in the open and distance learning is adding new vista to the academic profession. At present, Programme Coordinator for the following IGNOU programmes: 1. Diploma in Dairy Technology; 2. Diploma in Value Added Products from Fruits &; Vegetables; 3. Post Graduate Diploma in Food Safety & Quality Management; and 4. Ph.D. in Dairy Science & Technology. Awarded with Commonwealth Scholarship for Post doctorate at CSIRO, Australia and Jawaharlal Nehru Award of ICAR. Always willing to learn.

DR. PRAVEEN JAIN

Assistant Professor in the School of Agriculture, Indira Gandhi National
Open University (IGNOU), New Delhi

TYPE OF COURSE	:	Diploma	**COURSE DURATION**	:	20 weeks (July 9, 2018 to Dec 31, 2018)
INTENDED AUDIENCE	:	Diploma	**EXAM DATE**	:	December 2018
			NO OF CREDITS	:	4

PRE-REQUISITES : Graduation/ Post Graduation in Science with Chemistry/ Bio-chemistry or Microbiology as one of the subjects.

OBJECTIVE OF COURSE

The course describes the various phases of the Indian agriculture development starting from the pre-historic agriculture to the modern agriculture. The course identifies the traditions, belief and agricultural practices followed by Indian farmers.   The course explains the scope of Indian agriculture and its contribution in the Indian economy. The status, utilization pattern, problems and development of agricultural resources viz. land, labour, water, biodiversity, livestock and fisheries are covered. Institutional development in agriculture such as cooperatives, farmers' organization, institutional finance, research, education and extension warehousing and storage, public distribution system, etc. are explained along with their importance. Various concepts such as capital formation, agricultural pricing, taxation and subsidies are briefly described along with their importance in agricultural production management. The course talks about the role of food grains procurement, storage, marketing, research and technology transfer in development of Indian agriculture.

LEARNING OUTCOME

The learners will recognise the emerging issues and trends in agriculture such as diversification, agriculture industry interface, trade, quality, gender and sustainability, globalization and use of information and communication technology.
during manufacturing and storage of fermented, cheese, ice-cream and by-products.

COURSE PLAN

Week 1: Evolution And Scope Of Agriculture
WEEK 2: INDIAN FARMERS TRADITIONS, BELIEF AND PRACTICES
Week 3: Role of Agriculture in Indian Economy
Week 4: Development of Indian Agriculture
Week 5: Land Resources and Cropping Pattern
Week 6: Biodiversity- Conservation and Utilization
Week 7: Growth and Characteristics Of Agricultural Labour
Week 8: Livestock and Fisheries Resources In India
Week 9: Agricultural Credit, Insurance and Warehousing
Week 10: Public Distribution System and Food Security
Week 11: Cooperatives, Farmers Organizations and NGOs
Week 12: Research, Education and Extension
Week 13: Capital Formation, Pricing, Taxation and Subsidies
Week 14: Procurement, Storage And Distribution of Foodgrains
Week 15: Research and Development and Transfer of Technology
Week 16: Agriculture Linkage with other Sub-Systems
Week 17: Diversification in Agriculture
Week 18: Agriculture Industry Interface
Week 19: Issues Related to Trade, Gender and Sustainability
Week 20: ICT and Agriculture

ABOUT INSTRUCTOR

Dr. Praveen K. Jain, Ph.D. in Agricultural Economics is working as Assistant Professor in the School of Agriculture, Indira Gandhi National Open University (IGNOU), New Delhi since 2006. His areas of interest include e-learning technologies, e-extension, and agriculture education through ODL besides the core areas agricultural policy, agricultural marketing and agribusiness management. He is coordinating distance education programmes in the areas of agricultural policy, plantation management, agribusiness management and agriculture extension. He has more than 35 research papers and 3 books to his credit.

DR. P VIJAYAKUMAR

Assistant Professor, School of agriculture, Indira Gandhi National
Open University(IGNOU), New Delhi

TYPE OF COURSE	:	Certificate
INTENDED AUDIENCE	:	Certificate

COURSE DURATION	:	10 weeks (July 9, 2018 to Dec 31, 2018)
EXAM DATE	:	December 2018
NO OF CREDITS	:	2

OBJECTIVE OF COURSE

The course is designed to acquaint with the status and perspective of Indian Poultry Industry and advantages of rearing poultry.

LEARNING OUTCOME

After going through the course the learners will be able to:.

- understand various types of poultry farms and farming systems practised in India

- know about the different academic and development institutions involved in the training and extension activities in the poultry sector

- enumerate different government schemes and poultry cooperatives throw light on the common breeds of poultry, different body systems and functions, different breeding systems involved in poultry farming and culling and judging of poultry

COURSE PLAN

- Indian Poultry Industry - Brief View
- Indian Poultry Industry - Growing Trends
- Common Technical Terms in Poultry Production
- Poultry Body System and Functions
- Poultry Farming in India
- Poultry Development Programmes in India
- Various Types of Poultry Farms
- Rural Backyard Poultry Farming
- Small Scale Broiler Farming for Meat
- Commercial Intensive Broiler Farming for Meat Production
- Small Scale Layer Farming for Eggs
- Commercial Layer Farming for Eggs
- Duck Farming for Eggs and Meat
- Quail Farming for Eggs and Meat
- Turkey Farming for Eggs and Meat
- Poultry Breeder Farms and Integrated Mixed Farming
- Breeds, Varieties and Strains of Poultry
- Systems of Poultry Breeding
- Culling of Birds for Profitable Poultry Farming
- Judging of Poultry for Better Performance

ABOUT INSTRUCTOR

Dr. P. Vijayakumar, Ph.D. in Livestock Production Management (LPM) is working as Assistant Professor in the School of Agriculture, Indira Gandhi National Open University (IGNOU), New Delhi since 2006. His areas of interest include Animal Husbandry, Dairy/Poultry farming, distance education and food safety through ODL . He is coordinating distance education programmes in the areas of Sericulture, Dairy Farming, Poultry Farming and Fish Products Technology. He has published 12 research papers and 3 book chapters in reputed national and international journals and publications.

DR. G. MYTHILI
Deputy Director, STRIDE, Indira Gandhi National Open University(IGNOU), New Delhi

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TYPE OF COURSE	: Diploma	**COURSE DURATION**	: 12 weeks (July 1, 2018 to Dec 31, 2018)
INTENDED AUDIENCE	: Diploma	**EXAM DATE**	: December 2018
		NO OF CREDITS	: 4

OBJECTIVE OF COURSE

Keeping in view the need of the learners, teachers and practitioners of e-learning, this course is planned, designed and developed to acquaint them with the design aspects of Instructional Design.

LEARNING OUTCOME

This course describes the foundations, processes, models and theories and instructional design in practice that have evolved from the basic systemic approaches for e-learning environment.

COURSE PLAN

Introduction to Open and Distance Learning
Understanding Learning and Instructions
School of Thoughts Behaviourism (Part-1)
School of Thoughts Behaviourism (Part-2)
School of Thoughts: Cognitivism
Jean Piaget's theory of cognitive
Constructivism and Online Learning
Connectivism and Digital Learning
Cognitive Load Theory
Cognitive Flexibility Theory
Instructional Design and Online Learning
ADDIE Model
Dick and Carey Model
The Assure Model of Instructional Design
Four-Component Instructional Design (4C-ID) Model
Assure Model of Instructional Design
Understanding Learning and Instruction
Collaborative Learning
Scenario based Learning
Top Down and Bottom Up -Theories and Perspective
Problem Based Learning
Bloom's Taxonomy and Digital Learning
Robert Gange's Learning Outcome
Vygotsky_ Language of Thoughts
Jerome S. Bruner on Teaching Learning
Learning Objectives
Concept Mapping and Digital Learning
Concept Mapping - Free Mind
Technology Analysis for E-Learning
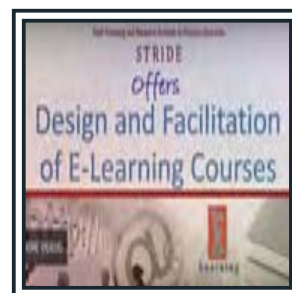
ABOUT INSTRUCTOR

Dr. G. Mythili, BE (Computer Science and Engineering), Master of Science in IT, Master of Arts in Distance Education and Ph.D in Distance Education is Deputy Director in Staff Training and Research Institute of Distance Education, IGNOU. She has contributed towards the development of human and training resources through academic workshops and by developing training materials in IGNOU. She has conducted a number of research individually, and as part of a team during the last 5-6 years and has published articles in referred journals. She is an efficient resource person for training of various kinds with special reference to computer related training on basic computing, multimedia development and online, web-based training (Web 2.0). She is coordinating two online programmes of IGNOU: Academic Counsellors Training–Online and Post Graduate Diploma in E-Learning.

SHIVAJI BHASKAR
Assistant Professor in Russian at the School of Foreign Languages IGNOU

TYPE OF COURSE	: Diploma	**COURSE DURATION** :	12 weeks (July 1, 2018 to Dec 31, 2018)
INTENDED AUDIENCE :	Diploma	**EXAM DATE** :	December 2018
		NO OF CREDITS :	4

PRE-REQUISITES : No formal Education is required, though 10th level of English proficiency is desirable.

OBJECTIVE OF COURSE

The main objective of the course is to give an opportunity to all those who want to learn Russian.

LEARNING OUTCOME

•To develop the ability to use Russian effectively for the purpose of practical communication in spoken and written discourse.
•To respond, in written or oral form, quickly, adequately and accurately in different communicative situations (such as- to give & receive personal information, to give basic instructions, to involve in dialogues related to day-to-day life, to relate events, facts and to narrate situations, to express opinions, to describe persons or things, to justify opinions, etc.)
•To demonstrate knowledge of sufficient vocabulary to use with grammar patterns
•To enable students to gain access through language to the contemporary scene and the background of Russian speaking countries, their people and their cultures.
•To establish the skills, language and attitude required to promote and facilitate further study of Russian.

COURSE PLAN

Origin of the Russian Language
Introduction to the Russian Alphabet
Letters of the Russian Alphabet
Vowels & Consonants
Vowels sounds
Consonant Sounds
Introduction to the Russian Phonetics: Voiced & Voiceless Consonants.
Devoicing of Consonants; Singular & Plural Nouns
Combination of Vowel sounds & Consonant Sounds-
Use of Stress sign and Intonation in Russian
Use of Affirmative and Negative sentences in Russian
Pronouns in Russian
Verb Conjugations
Verb Conjugations
Personal Pronouns
Possessive pronouns
Demonstrative pronouns

•Use of Animate and Inanimate in Russian
•Gender in Russian
Russian Verbs and Their Conjugations
Use of Who and What in Russian
Days of the Week
Months of the Year
Cardinal numbers in Russian
Verbs conjugations in Russian
Dialogs & Texts in Russian
Case System in Russian
Prepositional Case
Use of Noun and Adjective endings in Russian
Use of Questions "Where?" and "Where?" to in Russian
Use of Pronouns in Prepositional Case
Use of Questions "About What" and "About Whom?"
Use of Verbs of Motion in Russian
Use of Verbs of Motion in Russian with Prefixes
Common Phrases, Greetings in Russian and Russian Cuisine.

ABOUT INSTRUCTOR

Mr. Shivaji Bhaskar is Assistant Professor in Russian at the School of Foreign Languages, IGNOU. His area of special interest is Teaching of Russian as a Foreign Language (РКИ), Culture & Civilization of Russia, Translation & Interpretation and Area Studies with special emphasis to Russian and Eurasian Studies.

DR. MUKESH KUMAR

Assistant Professor in the School of Agriculture, Indira Gandhi National Open University (IGNOU), New Delhi

TYPE OF COURSE	: Awareness	**COURSE DURATION** :	4 weeks (Sep 5, 2018 to Nov 4, 2018)
INTENDED AUDIENCE :	Neo-literates preferably 8th pass	**EXAM DATE** :	December 2018
		NO OF CREDITS :	4
PRE-REQUISITES	: Class 8 pass		

OBJECTIVE OF COURSE

- Sensitize and educate learners about importance of solar energy and its application in agriculture;
- Identify the components solar PV water pumping system;

LEARNING OUTCOME

Impart the skills for operation, operation, maintenance and safety in relation to solar PV water pumping system.

COURSE PLAN

Module-I: Solar Energy and its Application
Module-II: Solar Water Pump and its Components
Module-III: Operation, Maintenance and Safety

ABOUT INSTRUCTOR

Dr. Mukesh Kumar is working as Assistant Professor (Stage-3) in School of Agriculture, Indira Gandhi National Open University, New Delhi. He has completed B.Tech. in Agricultural Engineering and Masters in Soil and Water Engineering from Punjab Agricultural University Ludhiana. He received his Ph.D. in Agricultural Engineering with the specialization in Soil and Water Conservation Engineering from Indian Agricultural Research Institute. Dr. Mukesh Kumar has started his Professional career in 2001 at IARI as Research Associate. He has teaching and research experience in the field of drip irrigation, water management and watershed management.
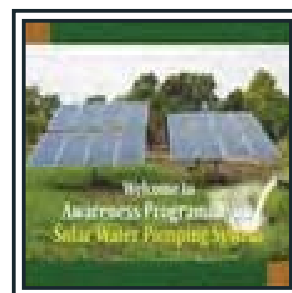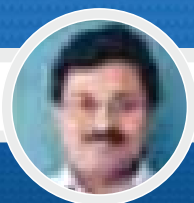
DR. M. RAJESH
Regional Director, IGNOU Regional centre, Vatakara, Kerala

TYPE OF COURSE : Certificate

INTENDED AUDIENCE : Certificate

PRE-REQUISITES : Class 8 pass

COURSE DURATION : 6 weeks (Oct 1, 2018 to Nov 15, 2018)

EXAM DATE : December 2018

NO OF CREDITS : -

OBJECTIVE OF COURSE

This course is an unique attempt to present environmental issues from the perspective of social and allied sciences.

LEARNING OUTCOME

The course has the advantage of leveraging experts from diverse fields such as law, trade, education, sociology, technology, international relations and the like.

COURSE PLAN

- Envrionment and Society - Introduction
- Seminal cases in Environmental Protection
- Environment and the Indian Constitution
- Legal Edifice of Environmental Protection
- Environment Impact Assessment Norms and their Application In India
- The water Act
- The Air Act 1981
- The Gadgil Report on the Western Ghats
- e Wild life Protection Act 1972
- Forest Conversion Act 1980
- The Kasturirangan Report
- Trade and Environment

ABOUT INSTRUCTOR

Dr. M.Rajesh, Regional Director, IGNOU Regional centre, Vatakara, Kerala

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July 2018