Achhruram Memorial College

Jhalda, Purulia, West Bengal

Organised By Bengali Department

Session - 2021-2022

Certificate Course

Subject - "AAJKER PREKSHITE KOBI KAZI NAZRUL ISLAM"

Course Co-Ordinator - Dr. Arunava Mukherjee

- Duration of the course - 30 Hours
- Student participating in the course will be evaluated by keeping the course and marks will be given based on that.
- The evaluation value will be 50
- Minimum 60% attendance of every student in the course is compulsory.

- **Students participating in the course will be evaluated at the end of the course and certificate will be given based on that. The procedure will be explained in detail in class.**

- **Purpose and Importance of the Course –** **In the era of impossible possibilities of the 20th century, poet Nazrul appeared in the Bengali literary arena with a burning desire to ignite the human mind with the fire of language. Therefore, in the popular opinion, Nazrul is a poet of rebellion, poet of love, poet of communism, etc. Nazrul is such a creation of God that even today he is 'Ajay, Amar, Akshaya, Abaya, Purushottam Sattya'. Therefore, the main aim of this course is to inform the poet Kazi Nazrul Islam to understand his creation and how relevant his writings and words are in the current context to the students and to develop them spiritually and intellectually.**

- **Syllabus -**

Unit	Subject	Context	Subject and Purpose of the Unit	Time	Full Marks
Unit – 1	An early introduction to Nazrul's life and literature	General introduction about Nazrul's life	Through this unit, the students will be able to learn about the life of Nazrul and the history of his becoming a poet, besides getting an idea of the social, religious and economic environment of the then subjugated India, they will be able to pave the way for the future society.	10 Hours	15
Unit – 2	Necessity of reading Nazrul literature in present era	Nazrul's poems songs and literary Nazrul	Students will be informed about Nazrul's creations and their people will become modern.	10 Hours	15
Unit – 3	Nazrul's thoughts and thoughts on literature	Nazrul's humanism, secularism, communism, Nazrul's love and rebellion	By following Nazrul's life and ideals, they will be able to smooth their future path. Enlightened in the light of Nazrul's values, society will play a leading role in building a larger society by gaining a protest mentality against the prejudices, communal differences, economic exploitation regime.	10 Hours	20

Subsidiary bibliography

1) All volumes of Kazi Nazrul Islam are published by West Bengal Bangla Akademi, Kolkata – 20
2) Arun Kumar Bose, Nazrul Biography, January 2000, West Bengal Bangla Academy, Kolkata – 20
3) Dr. Sushil Kumar Gupta, Nazrul Charit Manas, Refined and Modified Country Edition, January 1997. Kolkata 73
4) Ataur Rahman, Nazrul Kabbya Samiksha, Fourth Release, February 1987, Muktdhara Prakashani, Farajganj, Dhaka – 1100
5) Dr. Arunavu Mukherjee, Nazrul Chetanai Rabindranath, Angshuman Publication, 1st release 1420, Kolkata - 09

Starts from April 3- to May 10, 2022

Achhruram Memorial College, Jhalda, Purulia

Certificate Course in Intensive plant authentication and medicinal plant preparation.

Certificate Course

Course Duration: 30 Hours

Course Coordinator:
Md. Salman Hyder
Department of Botany

Course Objective

Equip participants with essential knowledge and practical skills in authenticating plant species and preparing medicinal plants for therapeutic use, emphasizing safety, efficacy, and sustainable practices.

Who should participate?

This course is suitable for Undergraduate students in Botany, Zoology or any interested students who wants to learn and in future to start entrepreneurship related programs for cultivating mushrooms.

Expected Outcome

Participants will be proficient in plant species authentication, understand various extraction and preparation methods, ensure the quality and safety of medicinal plant products, and apply sustainable practices in medicinal plant use.

Course Venue

Department of Botany,
Achhruram College, Jhalda,
Purulia, West Bengal, India

Course Modules Outline:

Module 1: Introduction to Plant Authentication

Module 2: Botanical Identification Techniques

Module 3: Plant Collection and Preservation

Module 4: Chemical Analysis of Medicinal Plants

Module 5: Documentation and Reporting

Module 6: Introduction to Medicinal Plant Preparation

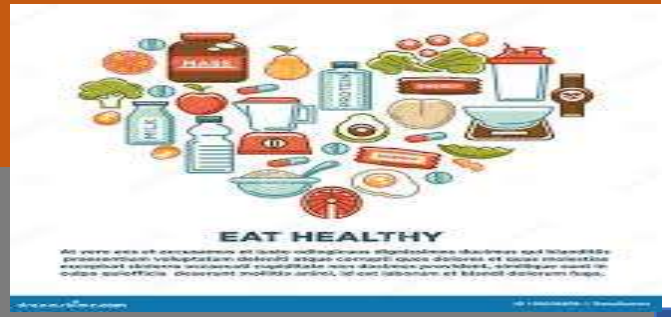
Module 7: Application in Real-world Scenarios

For further information please contact the course coordinator.

Achhruram Memorial College, Jhalda (Under the aegis of IQAC)

TWO WEEKS - CERTIFICATE COURSE IN

HEALTH AND NUTRITION



Course Period
June 1 to June 19, 2022

Number of Lectures
30 Hours

Course Objectives

Equip participants with essential knowledge and practical skills in health and nutrition to make informed dietary choices, plan balanced meals, address special nutritional needs, and promote overall well-being..

Expected Outcomes

Upon completion of the course, students will Gain a comprehensive understanding of health and nutrition, learn to plan balanced diets, address special dietary needs, and promote overall well-being through informed choices..

Course Content Outline

Module 1: Introduction to Health and Nutrition
Module 2: Nutrients and Their Functions
Module 3: Dietary Guidelines and Meal Planning
Module 4: Digestion, Metabolism, and Special Dietary Needs
Module 5: Nutrition in Different Life Stages and Health Conditions

Course Coordinator
Dr. Ghanashyam Mahato
Department of Botany

Who should participate?

Only bonafide and regular students of the college, who is enrolled for a Graduation courses in any discipline and who are interested in integrating computational techniques with biological research can participate. This course will also be helpful for the individuals who further carry out research in pharmaceuticals and health sectors.

For registration contact course coordinator

Starts from Feb 13th to 28th Mar, 2022

Achhruram Memorial College, Jhalda, Purulia

Certificate Course in "Integrating herbal products in modern medicine"

Certificate Course

Course Duration: 30 Hours

Course Coordinator:
Md. Salman Hyder,
Department of Botany

Course Objective

The objective of this course is to equip participants with comprehensive knowledge and practical skills related to the application of herbal products in the fields of medicine and cosmetics.

Expected Outcome

- ✓**Understand the Historical and Cultural Context**
- ✓**Identify Key Herbal Ingredients and Their Properties**
- ✓**Formulate Herbal Medicines and Cosmetics**
- ✓**Evaluate Therapeutic and Cosmetic Applications**
- ✓**Ensure Quality and Safety**
- ✓**Navigate Regulatory and Market Aspects**
- ✓**Engage in Evidence-based Practices**
- ✓**Collaborate and Innovate**

Course Modules Outline:

Module 1: Course Introduction and Overview
Module 2: Historical Context and Evolution of Herbal Medicine
Module 3: Key Herbal Ingredients and Their Medicinal Properties
Module 4: Formulation and Development of Herbal Medicines

Module 5: Case Studies and Real-world Applications in Medicine
Module 6: Quality Control and Safety of Herbal Medicines
Module 7: Regulatory Aspects and Market Trends in Herbal Medicine
Module 8: Introduction to Herbal Cosmetics
Module 9: Key Herbal Ingredients and Their Cosmetic Benefits
Module 10: Regulatory Aspects and Market Trends in Herbal Cosmetics

Who should participate?

This course is suitable for Undergraduate students in Botany or any interested students who wants to learn herbal medicine and its role in modern therapeutic approaches.

Course Venue

Department of Botany,
Achhruram College, Jhalda,
Purulia, West Bengal, India

For further information please contact the course coordinator.

Achhruram Memorial College

Jhalda, Purulia, West Bengal

Certificate Course on Spoken English

Department of English

(Academic Session – 2022-2023)

Course Objective:

- To help students improve their speaking ability in terms of comprehensibility and fluency.
- To help students understand accurate English pronunciation
- To enable students to use English for various practical purposes and hence, enhance their overall communication skills.

Participation: Students from any discipline having basic knowledge about English in terms of speaking, reading, writing and listening can join.

Duration: 30 Hours

Course Coordinator: Dr. Debmalya Das

Modules

Module 1: Self Introduction: 4 classes

- Introducing myself
- My family
- My friends
- My village/Hometown
- My university
- My country

At the end of the first four classes each student must submit a write up on self-introduction as his/her first home assignment

Module 2: Meeting and greeting people: 6 classes

- Conversation between two friends (There will be a group of two. You have to find a situation/topic e.g. the evening before an internal exam, planning for a movie date, a departmental picnic, congratulating your friend for her achievement, inviting your friend to attend some event etc.)
- Conversation between two unknown people
- Conversation between two friends and another unknown person (there will be a group of three)

Module 3: Formal/Official conversation: 3 classes

- Teacher-Student conversation (There will be a group of two. One will play the role of a teacher and one will be the student. The situation/topic may be diverse, e.g. responding in class, making queries, asking permission for some event etc.)
- Telephonic conversation (to customer care, online shopping sites, representatives of some tour agencies, etc.)

Module 4: Grammar classes: 3 classes

- Teaching and Practice (Types of sentences, Tense, Active-Passive voice, Preposition)

Module 5: Newspaper reading: 2 classes (Each student must bring an English daily such as The Statesman, The Telegraph for the exercise)

Module 6: Group Discussion and Bio-Data: 3 classes
At the end of the three classes each student must prepare a bio-data and submit. This is their second home assignment.

Module 7: Mock-Interview Session: 3 classes

Achhruram Memorial College, Jhalda . Purulia

Value added course in Geography

Introduction to MS Office application in advanced statistical techniques in Geography

Who Can Participate

These courses designed to provide comprehensive and practical knowledge, students who are interested are all welcome to join this certificate course to improve their knowledge in this field.

Expected Outcomes

- Comprehensive And Practical Knowledge
- Comprehensive understanding of contemporary perspective of sustainable development with respect to its interplay with Geography

Course Objectives

This course provides an introduction to MS Office application in advanced statistical techniques in Geography. To develop job oriented skill in computer related geographical analysis.

Course Content

Module 1(4hours): Introduction MS Office latest version - Microsoft Office along with each of their functions.

Module 2(4hours):MS Word- Creation of text documents, Templates, Work Art, colours, images, animations

Module 3(6 hours):MS Excel - spreadsheet , data processing application, application of SPSS

Module 4(4hours):MS PowerPoint - Audiovisual presentations, Excel - spreadsheet , data processing application, application of SPSS on PowerPoint

Module 5(4hours):MS Access - Database Management Software (DBMS), table, queries, forms and reports can be created on MS Access

Module 6(hours):MS Outlook - personal information management system, Application or multi-user software and Its functions including task managing, calendaring,

Module 7(4hours):MS OneNote - note-taking application, online and offline and is a multi-user application

Duration : 32 hours

Course coordinator : Dr. Soumitra Sen

Department of Geography

Achhruram Memorial College

Jhalda, Purulia, West Bengal, India, Pin: 723 202

Information Sources and Services

Course Objectives

The objective of this course is to familiarize students with a broad range of information source, i.e., from early forms to the modern forms and to develop evaluation and practical skills in dealing with information sources. Student will be trained in developing various information services and products. They will also get acquaintance with different Library Networks, National Information Systems and Global Information Systems.

Expected Outcome

By doing this course students can remember and understand the basic concepts related to various information sources, systems and services. They can also apply the knowledge in understanding practical problems. Execute/create the Project or field assignment as per the knowledge gained in the course.

Course Coordinator:
Mrs. Riptika Pal, Librarian

Course Content

Module I (8 Hours)

Information Sources: Primary, Secondary & Tertiary; Documentary and Non-documentary; Bibliographical Sources: Bibliographies, Abstracting journals, Indexing Journals; Reference Sources: Dictionaries, Encyclopedias, Almanacs, Year Books, Directories, Handbooks, Manuals, News-Summaries, Concordances, Biographical, Geographical Information Sources

Module II (8 Hours)

Economics of Information: Value of Information as a resource and commodity; Economics of Information Sources and Production; Information as a factor of production

Module III (8 Hours)

Information Services: Concept, Definition, Need & Purpose; Reference Service; Current Awareness Services (CAS), Selective Dissemination of Information (SDI), Bibliographic, Referral, Document Delivery Service (DDS), Translation service; Abstracting and Indexing Services: Meaning, Use. Types and Parts; Current trends in information service

Module IV (8 Hours)

Information Analysis and Consolidation, Packaging and Re-Packaging: Concept, Need, Purpose and Criteria; Information Consolidation Products: Types, Design and Development

Certificate Course Duration: 32 Hours

*For any query contact course coordinator

Achhruram Memorial College

Jhalda, Purulia, West Bengal, India, Pin: 723 202

Certificate course in Library and Information Management

Course Objectives

Library and Information Management is a course that specialises in library management and administration. The course is a culmination of disciplines primarily dealing in organization, access, collection, and protection or regulation of information, whether in physical or digital forms. Any student with a passion for the job of a librarian can apply for this course.

Expected Outcome

Students after completing this course will have gained knowledge about various operational subsystems of a library. During this course students will learn a variety of subjects including library organization and management, library catalogue, information sources and services, information technology and more. Additionally, the course helps students understand the tools of management applied, arranging library data by application of information technology and making them easily applicable to the public.

Course Content

Module I (8 hours)

Basic of Library Science: Information Society, Library Legislation, Public Library Act

Module II (4 hours)

Library Management: Managerial Tasks of Library Administration, Collection Development, maintenance and shelving

Module III (8 hours)

Knowledge Organisation: General theory of Library classifications (Theory) and Basic concepts of Cataloging (Theory)

Module IV (4 hours)

Information Sources and Services: Concept, Varieties and functions of Reference Department

Module V (8 hours)

Data, Information, Knowledge, ICT- Definition, Scope, Application of ICT in activities of library and information centers.

Add-On Course, Central Library

Duration: 32 hours

Course Coordinator: Mrs. Riptika Pal, Librarian

#For more information contact course coordinator

Starts from 01/03/2022

Achhruram Memorial College, Jhalda, Purulia

Certificate Course in Financial Mathematics for Real-Life Applications

Course Duration: 32 Hours

Course Coordinator:
Mr. Laltu Gorai,
Dept. of Mathematics

Course Objective

To provide students with a practical understanding of financial mathematics and its applications in real-life scenarios, enabling them to analyze financial problems, make informed decisions, and manage personal and professional finances effectively.

Who can participate?

This course is suitable for Undergraduate students in Mathematics, Physics, Chemistry, or interested students.

Expected Outcome

Upon completing the course, students will master financial mathematics for real-world applications, including time value of money, interest rates, and investment analysis. They will adeptly solve financial problems like loans, mortgages, and retirement planning using mathematical tools and computational software. Students will evaluate financial products based on risk and return, developing critical thinking skills for informed decision-making. They will effectively communicate financial concepts orally and in writing to diverse audiences, ensuring clarity and understanding. Overall, students will be equipped to manage personal and professional finances wisely, making informed decisions and planning for long-term financial security.

Course Venue

Department of Mathematics,
Achhruram College, Jhalda,
Purulia, West Bengal, India

Certificate Course

Course Content Modules

Module 1: Time Value of Money and Interest Rates:- Concepts such as present value, future value, annuities, and compound interest, providing a foundation for understanding the time value of money and financial decision-making.

Module 2: Portfolio Theory and Asset Pricing:- Portfolio optimization techniques, asset pricing models (e.g., CAPM), and diversification strategies to manage risk and maximize returns in investment portfolios.

Module 3: Derivatives and Risk Management:- Derivatives instruments such as options, futures, and swaps, along with risk management techniques including value-at-risk (VaR) and hedging strategies to mitigate financial risk.

For further information please contact the course coordinator.

Starts from 25/02/2022

Achhruram Memorial College, Jhalda, Purulia

Certificate Course in Modern Mathematics for Data Science and Analytics

Certificate Course

Course Duration: 32 Hours

Course Coordinator:
Mr. Santigopal Mukherjee,
Dept. of Mathematics

Course Objective

To equip students with advanced mathematical concepts and techniques essential for data science and analytics in modern contexts, focusing on topics such as linear algebra, probability theory, and optimization methods, enabling them to effectively analyze complex data sets and derive actionable insights.

Who can participate?

This course is suitable for Undergraduate students in Mathematics, Physics, Chemistry, or interested students.

Expected Outcome

Upon completing the course, students will demonstrate proficiency in applying advanced mathematical concepts, including linear algebra, probability theory, and optimization methods, to analyze complex datasets in data science and analytics. They will possess the ability to use mathematical tools and computational techniques to model and interpret data, identify patterns, and make data-driven decisions. Students will also develop critical thinking skills to evaluate and optimize analytical processes, ensuring robust and efficient data analysis. Overall, they will be prepared to contribute effectively to modern data-driven industries and research environments, leveraging mathematical expertise to derive meaningful insights and solve real-world problems.

Course Venue

Department of Mathematics,
Achhruram College, Jhalda,
Purulia, West Bengal, India

Course Content Modules

Module 1: Probability and Statistics for Data Analysis:- Probability theory, statistical distributions, hypothesis testing, and Bayesian inference, providing the foundation for analyzing data and making statistical inferences.

Module 2: Linear Algebra for Machine Learning:- Linear algebra concepts essential for machine learning, including matrix operations, eigenvalues, eigenvectors, and applications in dimensionality reduction and data preprocessing.

Module 3: Optimization Techniques in Data Science:- Optimization algorithms such as gradient descent, stochastic gradient descent, and convex optimization, commonly used in training machine learning models and solving data-driven optimization problems.

For further information please contact the course coordinator.

Achhruram Memorial College

Jhalda, Purulia, West Bengal

Certificate Course

Domestic Electric Circuits and Electrical Appliances

Course Objective: This course is designed to provide a deeper understanding of electrical connections, circuits, and their relevance to various aspects of daily life.

Expected Outcome: Upon completion of this certificate course, students are expected to have achieved a standardized proficiency in the fundamentals of Electrical Circuit physic, preparing them for more advanced studies and real-world applications in the field.

Who can participate?

Individuals eager to achieve proficiency in the fundamental principles of electrical circuits, and domestic electrical appliances.

Duration: 30 hours

Course Coordinator: Dr. Biswajit Dalal

Department of Physics

Course Content

Module I: Electric circuit elements and basic electricity principles (3 hours)

Module II: Diodes and Rectifiers (Half-wave, Full-wave and Bridge), AC and DC electricity, AC and DC power sources, and their circuit analysis (5 hours)

Module III: Single-phase and three-phase alternating current sources. Working principle of transformers (3 hours)

Module IV: Electrical Meter, Electrical Wiring, Fuses, Relays, Circuit breakers (MCB, MCCB, RCCB), Overloading and Short-circuiting, Earthing (4 hours)

Module V: AC and DC Motors – working principle, differences, disadvantages and power consumptions. (4 hours)

Module VI: Inverter – working principle and applications in regular household appliances, such as, Battery, Refrigerator, Air Conditioner, etc. (5 hours)

Module VII: Hands-on experiments for connecting wires and cables through soldering, measurements of current, voltage, power in various circuits through multimeter, preparation of extension board for multiple power outlets. (6 hours)

**** for more information, please contact the course coordinator.***

Date: 14/02/2022 to 06/05/2022

Starts from 05/04/2022

Achhruram Memorial College, Jhalda, Purulia

Certificate Course on: Ancient India's Water Harvesting Practices: Knowledge and Wisdom

Course Duration: 32 Hours

Course Coordinator:
Dr. Samar Kanti Chakrabartty
Dept. of History

Course Objective The primary objective of ancient India's water harvesting practices was to capturing and conserving rainwater, communities aimed to ensure a steady supply of water for drinking, irrigation, and domestic use.

Course Venue

Department of History
Achhruram College, Jhalda,
Purulia, West Bengal, India

Who can participate?

This course is suitable for Undergraduate students of arts and Humanities and science also.

Importance and impact

Physical Structure: Ancient Indians employed a variety of physical structures for water harvesting, showcasing their ingenuity and engineering prowess.
Socioeconomic Importance: Water harvesting practices in ancient India enabled agricultural productivity, state's economy, which formed the backbone of the economy.
Culture and Wisdom: Ancient India's water harvesting practices exemplify a harmonious blend of knowledge, wisdom, and cultural ethos aimed at sustainable resource management.

Certificate Course

Course outcomes

The course outcomes of studying Ancient India's water harvesting practices, focusing on knowledge and wisdom, could include the following points:

1.Understanding of Historical Techniques, 2.Appreciation of Cultural Significance, 3.Analysis of Technological Advancements, 4.Evaluation of Sustainability Practices, 5.Critical Thinking on Wisdom and Ethics. 6.Application to Modern Challenges, 7. Interdisciplinary Connections, 8.Communication and Presentation Skills,9.Cultural Awareness and Diversity, 10.Research and Inquiry Skills:

For further information please contact the course coordinator.

Achhruram Memorial College, *Jhalda, Purulia, West Bengal*

Chemical Laboratory Safety and Security

Certificate Course

Course Objective: This course aims to educate undergraduate and postgraduate students on the fundamental principles of chemical and laboratory safety, focusing on the prevention of accidents, proper handling of hazardous materials, and adherence to safety protocols in laboratory settings.

Expected Outcome: By the end of this course, students will have gained a comprehensive understanding of chemical and laboratory safety, enabling them to contribute responsibly and confidently in laboratory environments while prioritizing their safety and that of their peers.

Who can participate? Science Student (UG/PG) (Chemistry, Physics, Biology as a major subject) are welcome to join this certificate course.

Duration: 30 hours

Course Coordinator: Dr. Rajib Mistri
Department of Chemistry

- ***for more information, please contact the course coordinator.***

Course Content

Module I: Introduction to Laboratory Safety, Overview of laboratory safety principles and regulations, Importance of safety culture in laboratories, Responsibilities of personnel: students, researchers, and supervisors **(4 hours).**

Module II: Chemical Hazards and Risk Assessment, Identification of hazardous chemicals and their properties, Risk assessment techniques and safety data sheets (SDS), Control measures: engineering controls, administrative controls, personal protective equipment (PPE) **(4 hours).**

Module III: Safe Handling and Storage of Chemicals, Proper techniques for handling, transferring, and disposing of chemicals, Storage requirements and compatibility of chemicals, Procedures for dealing with spills and leaks **(4 hours).**

Module IV: Laboratory Equipment Safety, Safety considerations for common laboratory equipment (e.g., fume hoods, autoclaves), Electrical and fire safety precautions, Maintenance and inspection protocols **(4 hours).**

Module V: Emergency Preparedness and Response, Development of emergency response plans, Procedures for responding to chemical spills, fires, and injuries, First aid basics and emergency contact information **(4 hours).**

Module VI: Regulatory Compliance and Legal Issues, Overview of local, national, and international regulations, Ethical considerations in laboratory research and safety, Reporting requirements for incidents and near misses **(4 hours).**

Module VII: Safety Communication and Training, Effective communication of safety protocols and procedures, Role of safety committees and training programs, Case studies and lessons learned from laboratory incidents. **(4 hours)**

Module VIII: Promoting a Culture of Safety, Strategies for promoting safety awareness and accountability, Peer mentoring and leadership in safety initiatives, Continuous improvement in safety practices **(4 Hours).**