> DEPARTMENT OF ASSAMESE

Add-On Course on Sampadanar Kala-Kaushal (Art of Editing)

Brochure:

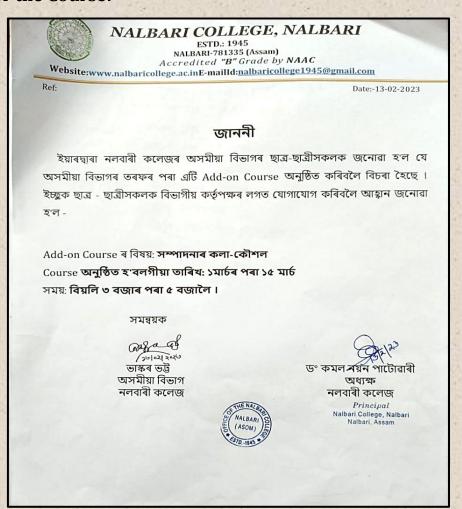
Subject of Add on Course: Sampadanar Kala-Kaushal (Art of Editing)

Course Co-ordinator: Bhaskar Bhatta,

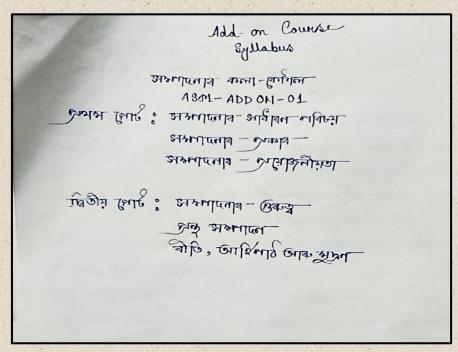
Assistant Professor,
Department of Assamese,
Nalbari College

Duration: 1st March to 15th March, 2023

Notice for the Course:



• Syllabus of the Course:



Course Outcomes:

- > Students will get a general introduction to editing. They will also gain knowledge about the types and requirements of editing.
- > Students will learn about various aspects of book editing. They will also learn about the printing of sample lessons and books, which will provide them with a livelihood in the future.

> DEPARTMENT OF BOTANY

Add-On Certificate Course in Biofertilizer Preparation

Notice for the Course:

Title of the course: Certificate course in biofertilizer preparation

Total lectures - 30

Credit - 02 (Theory - 01, Practical -01)

Objectives:

To inculcate the concept of Biofertilizers.
 To understand the techniques in biofertilizer production.
 To increase the employability of students.
 To improve the soil quality by promoting the biofertilizers.

Duration of Course : 03 months

Course Structure : Paper I - Theory

Paper II – Practical

Eligibility of Admission : HS or equivalent

Skeleton of the course

Sl No.	Paper	Teaching hours	Maximum marks allotted	Passing mark
1.	Paper I	30	30	09
2.	Paper II	22	20	06



Head Department of Botany Nalbari College, Nalbari



Principal Nalbari College, Nalbari



Coordinator of the course



OFFICE OF THE PRINCIPAL

NALBARI COLLEGE

ESTD-1945 NALBARI-781335 (ASSAM) Accredited **"B"** Grade by **NAAC**

Website: www.nalbaricollege.ac.in E-mail: nalbaricollege1945@gmail.com

Ref. No.:

Date: 08/01/2021

Mobile:+9194353-10880

Fax: 03624-220241

Notice

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SI. No	Title of the Add-on Course	Course Co-Ordinator	Department
1.	Certificate Course on Indian Knowledge System	Dr. Rupasmita Buzarbaruah	Sanskrit
2.	Application of Computer in Social Science	Dr. Bishnu Bhattacharyya	Economics
3.	Fundamental of Electronic and Radio communication	Surajit Sarma	Physics
4.	Translation Studies	Dr. Ranjana Bhattacharyya	English
5.	Learning Some Basic Chemistry Software	Dr. Purabi Sarmah	Chemistry
6.	Human Value and Ethics	Purabi Talukdar	Philosophy
7.	Biofertilizer Preparation	Dr. Gautam Kr. Handique	Botany
8.	Add on Fundamentals of Cartographic Techniques and Remote Sensing	Dr. Darshana Sarma	Geography
9.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
10.	Yoga –as a part of life	Anjan Sarma	Physical Education & Sports
11.	Spoken English	Dr. Darshana Goswami	English
12.	Disaster Management with special reference to Assam (Flood)	Giren Chandra Deka	Geography
13.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
14.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology



(Dr. Kamal Nayan Ratowary) Principal Nalbari College, Nalbari

• Syllabus of the Course:

Syllabus

Certificate course in biofertilizer preparation

Periods: 30 hours

Paper I - Theory

Unit-1

- 1.1 Introduction, History and concept of Bio fertilizers, status scope and importance of Bio fertilizers, Classification of Bio fertilizers.
 03 lectures
- **1.2** Bacterial Biofertilizers: Characteristic features of bacterial bio fertilizers; *Azospirillum, Azotobacter, Bacillus, Pseudomonas, Rhizobium* and *Frankia*; Cynobacterial biofertilizers-Anabaena, Nostoc; fugal biofertilizer AM mycorrhiza and ectomycorrhiza. 04 lectures
- 1.3 Biological Nitrogen fixation, Phosphate solubilizing microbes.

03 lectures

1.4 Production technology: Sterilization techniques; strain selection; pure culture of microbial strain; mass production of carrier based and liquid bio fertilizers.03 lectures

Unit-2

2.1 Vermicomposting: Introduction, scope, and objectives.

03 lectures

- 2.2. Vermicompost production: Establishment of vermicomposting and Verm wash unit; Bed method and pit method of vermicomposting.03 lectures
- 2.3. Harvesting of vermicompost; storing and packaging.

03 lectures

2.4. Nutrient content of vermicompost and their role in agriculture.

02 lectures

Unit - 3

3.1. Organic farming – Green manuring and organic fertilizers.

03 lectures

3.2. Bio compost making methods, types, filed application.

03 lectures

Paper II – Practical

- 1. Principles and functioning of instruments in microbiology laboratory.
- 2. Sterilization techniques and preparation of culture media.
- 3. Pure culture techniques.
- 4. Mass production techniques of carrier based biofertlizer
- 5. Establishment of vermicomposting unit Pit method.
- 6. Establishment of vermicomposting unit Bed method.
- 7. Establishment of vermiwash unit.
- 8. Vermicompost production, harvesting and packaging.

Notice for the Course:

Title of the course:

Cultivation Techniques of Horticultural crops

Total lectures - 30

Credit - 02 (Theory - 01, Practical -01)

Objectives:

1. To inculcate the importance of studying horticultural practices and usage of horticultural crops.

 $To \ equip\ the\ students\ with\ practical\ knowledge\ of\ different\ horticultural\ practices.$

To familiarise the students with the horticulture-based industries at national and international level.

To impart the basic skills of entrepreneurship in the students specifically in the field of horticulture.

Duration of Course : 30 contact hours : Paper I - Theory **Course Structure**

Paper II - Practical

Eligibility of Admission : HS or equivalent

Skeleton of the course

Sl No.	Paper	Teaching hours	Maximum marks allotted	Passing mark
1.	Paper I	30	30	09
2	Paper II		20	06



Department of Botany Nalbari College, Nalbari



Principal Nalbari College, Nalbari



Coordinator of the course



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Ref. No.:

Date: 04/01/2022

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SI. No	Title of the Add-on Course	Course Co-Ordinator	Department
1.	Add on Course on Basics of Manuscriptology and Palaeography	Hemen Kalita	Sanskrit
2.	Women Entrepreneurship	Dr. Aditi Das	Economics
3.	Sampadanar Kala-Koushal	Bhaskar Bhatta	Assamese
4.	Basics of Household Wiring and Earthing system	Surajit Sarma	Physics
5.	Creative writing	Dr. Darshana Goswami	English
6.	Cultivation Techniques of Horticulture Crops	Dr. Gautam Kr. Handique	Botany
7.	Analysis of Water	Dr. Purabi Sarmah	Chemistry
8.	Dyes and Pigments	Dr. Purabi Sarmah	Chemistry
9.	Professional Ethics	Purabi Talukdar	Philosophy
10.	Philosophy of Sankardeva	Purabi Talukdar	Philosophy
11.	Global Issues and Challenges	Binoy Musahari	Political Science
12.	Introduction to Options and Future Trading.	Dr. Mriganka Sekhar Dutta	Mathematics
13.	Ethical Hacking	Dhruba Jyoti Mishra	Computer Science
14.	Vermiculture for Organic feeding of Plants, Poultry and Fishes	Kumud Ch. Rabha	Zoology
15.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
16.	Yoga -as a part of life	Anjan Sarma	Physical education & Sports
17.	Spoken English	Dr. Darshana Goswami	English
18.	Major Environmental Issues with Special reference to Assam	Giren Chandra Deka	Geography
19.	Value Education	Kakali Sarma	Education
20.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
21.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology
22.	Certificate Course on Disaster Management	Riki Deuri Bharali	Geography
23.	Add on Course on Spoken Sanskrit	Debasis Goswami	Sanskrit
24.	Basics of Ornithology	Dr. Bidyut Kr. Das	Zoology



(Dr. Kamar Nayah Patowary) Principal Nalbari College, Nalbari Principal Nalbari College, Nalba: Nalbari College, Nalba: Nalbari : Assam

Syllabus of the Course:

Syllabus Cultivation Techniques of Horticultural crops

Periods: 30 hours

Paper I - Theory

Unit 1. Introduction

06 lectures

Definition; Principles of horticulture; Concept and Objectives; Branches of Horticulture, garden tools and implements.

Unit 2. Plant propagation

08 lectures

- 2.1. Concept and history of plant propagation; Classifications of plant propagation methods; Choice of propagation methods.
- 2.2. Concept of Green house; Shade house; Net-house and Hot beds.
- 2.3. Methods of propagation; types of propagation; seed propagation; artificial vegetative propagation cutting, grafting, layering, tissue culture.

Unit 3. Floriculture, olericulture, and Pomology

08 lectures

- 3.1. Cut flower; bonsai; importance of scope of cut and loose flowers in national and global trade; Importance of flower shows and exhibitions.
- 3.2. Cropping systems and production technology of vegetable crops; modern methods of vegetable cultivation; hybrid seed production of vegetable crops.
- 3.3. Tropical and subtropical fruits and their cultivation; maturity standards, harvesting, grading and ripening of Fruits; role of biotechnology and micropropagation in fruits.

Unit 4. Horticultural crop management

08 lectures

- 4.1. Harvesting and handling of fruits; principles, methods of preservation and processing of fruits.
- 4.2. Field and post-harvest diseases; Identification of deficiency symptoms; remedial measures and nutritional management practices; IPM strategies.
- 4.3. Quarantine practices; Identification of common diseases and pests of ornamentals, fruits, and vegetable crops.

Paper II - Practical

- 1. Tools used in horticultural practices basic principles and applications.
- 2. fertilizers types of fertilizer; use of organic and inorganic fertilizer.
- 3. Preparation of beds for raising seedlings.
- 4. Soil mixture preparation for nursery pots.
- 5. Process of budding, air layering, and scion grafting.
- 6. Mulching and manuring in nursery.
- 7. Uprooting and packaging of nursery plantlets.

> DEPARTMENT OF CHEMISTRY

Add-On Course on Learning Some Basic Chemistry Software

• Brochure:

ADD ON COURSE DEPARTMENT OF CHEMISTRY **NALBARI COLLEGE** Name of the Course: Learning Some Basic Chemistry Softwares 32 hours Duration: CHE-Ad-on-01 Course Code: **Course Committee** Chief Patron: Chairperson: Dr. Kamal Nayan Patowary Dr. Dhiraj Talukdar Principal, Nalbari College HoD, Dept. of Chemistry Nalbari & IQAC Coordinator Coordinator: Course Designed by: Dr. Purabi Sarmah Dr. Purabi Sarmah Asst. Coordinator: Dr. Pranita Bora **Faculty instructors** 1. Dr. Dhiraj Talukdar (DT) 3. Dr. Purabi Sarmah (PS) 2. Dr. Rupam Sarma (RS) 4. Dr. Pranita Bora (PB) 5. Dr. Ranjan Jyoti Sarmah (RJS) Librarian, Nalbari College

Notice for the Course:



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NALBARI COLLEGE

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14.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology





Nalbari College, Naibi

• Syllabus of the Course:

Some Basic Chemistry Softwares

DURATION: 32 hours

CHE-Ad-on-01

New educational policy (NEP) 2020 demands that our undergraduate students should be given a better opportunity in learning some additional skill-based knowledge apart from the traditional subjective knowledge that are already in the curriculum. This add on course is designed to help our B.Sc. students to learn various open-source chemistry softwares which are very much essential for sustainable carrier in Chemistry in future.

Objective

This course is aimed at providing hands on training of drawing simple or complex chemical structures, reaction schemes, graphical representation of data, molecular modelling and various other analytical tools which are indispensable for a chemistry student or a researcher.

COURSE DETAILS:

Module I: Learning Cambridge Chem Draw Ultra software (8 hours)

This chemical software is a molecular editor which is scientifically designed for drawing chemical as well as complex biological structures. It helps to create electronic description of molecules, graphics, reaction schemes etc. necessary for producing publication standard quality. This software permits us to draw structural representation of various organic molecules such as aromatics, bicyclic systems, polyhedra, phenyl rings, cycloalkanes, stereochemical, conformational and supramolecular structures etc. Orbital structures can also be drawn with the help of this software. It also enables one to draw various biological structures such as DNA, RNA, sugars, amino acids and various necessary bio arts with the help of the templates incorporated in the software.

This module include:

- > Introduction
- Download and installation
- Proper Guidance and hands on training of drawing a variety of chemical structures

- Drawing of 3D molecular structures.
- Chemical structure to name conversion and vice-versa.
- ➤ NMR spectrum simulation (Both ¹H and ¹³C NMR)
- Mass spectrum simulation
- > Practice task to students

Module II: Learning ACD Chem Sketch freeware (7 hours)

This ACD/Chem Sketch Freeware is a comprehensive chemical drawing tool that allows us to draw a wide range of chemical structures including organometallic compounds, polymers and Markush structures as well. This software also allows us to calculate various molecular properties of the target molecule. 2D and 3D view of the drawn molecule can also be accessed through this software. This module include:

- > Introduction
- Download and installation
- Hands on training of drawing a variety of chemical structures
- > Accessing 2D and 3D view of the target molecule and their comparison
- Calculation of molecular properties such as molecular weight, density, molar refractivity etc.
- Practice task to students

Module III: Learning Origin Lab software (8 hours)

Origin Lab is the most preferred data analysis and graphing software used by the students, researchers, scientists and academia worldwide. This user-friendly software provides advance customized features which can be applied in displaying various analytical results. This interface facilitates data analysis, statistical analysis, exploratory analysis, peak analysis etc. A wide category of publication quality graphs can be produced using this software.

This module includes

- > Introduction
- > Download and installation process
- > Drawing various graphs from the raw data
- high quality graphs export
- batch plotting
- > 3D graph plotting
- statistical graph plotting, descriptive statistics
- Curve fitting and peak fitting, peak analysis, peak identification and integration.
- baseline correction.

Module IV: Introduction to e-resources and their utilization (7 Hours)

This course module allows the participants to acquire knowledge of accessing various e-resources those can be availed through various platforms such as Google Scholar, Swayam (Study Webs of Active Learning for Young Aspiring Minds), NPTEL (National Programme on Technology Enhanced Learning), N-list (National Library and Information services) programme, e-PG Pathshala etc. Study materials and many other relevant information in the field of Chemistry can be gathered through these platforms which will make them updated, competent and focused in their future course of action.

Important features of this module are:

- Searching and downloading of research paper through various platforms using keywords
- Online structural database search, product search through CSD (Cambridge Structural database) and CCDC (Cambridge Crystallographic Data Centre) search
- Writing of dissertation reports
- Use of End note and foot note for putting references etc.

No of seats: 30 Course fee: Free

Resources: Necessary computer facilities and softwares would be made available to students for smooth conduction of the add on course. Hands on training will be imparted by the competent faculty members of the Chemistry Department of Nalbari college as well as by experienced experts from other educational institutions.

Learning outcome of the course:

By completing this course, a student would be able to acquire basic knowledge of drawing simple and complex chemical structures, able to depict schemes, flow charts, reaction pathways, graphical representations, etc. They also would

be able to present and analyze various analytical data and practical findings in the form of project/dissertation reports or can be reported in the form of power point presentation.

Evaluation and Certification: (2 hours)

Students' performance and learning outcome of the course will be assessed by giving them practical assignments, group activities, projects, seminars etc. After completion of course all successful candidates will be awarded with certificates.

Add-On Course on Analysis of Water

Notice for the Course:



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24.	Basics of Ornithology	Dr. Bidyut Kr. Das	Zoology



Syllabus of the Course:



Department of Chemistry Nalbari College



Course Title: Analysis of Water

Course Duration: 32 Hours Course Code: CHE-Ad-on-02

Introduction: Water is one of the most vital natural resources for all life on Earth. The availability and quality of water always have played an important role for all living beings. Even though there has been a plenty of water on Earth, it is not always suitable for all kind of uses. About 97.2% of the total water on the Earth is in the oceans, nearly 2.1% of this is frozen in glaciers and polar ice caps and only a small percentage (about 0.3%) is in the usable form for humans. Nevertheless, much of the 0.3 percent that is useable is unattainable. Therefore, water must be considered as a finite resource, like the petroleum products that has limits to its availability and suitability for use. The majority of fresh water is found underground in the form of soil moisture and in aquifers, whereas most of the surface water used by humans comes from rivers. Due to its incredible solvent properties, water mixes with and dissolves a wide variety of substances or contaminants and thereby making it impure.

Since water is used for different purposes, it becomes essential to check its suitability before use. Further, the sources of water must also be monitored regularly to know whether they are in proper condition or not. Poor condition of water bodies is a major threat to the society as well as to the ecosystem. The use of inappropriate water in industries may lead to serious damage or may cause severe economic loss. Thus, the analysis of water quality appears to be important before using it for any purpose.

Objective: Since analysis of water is very much essential in order to ensure public health as well as for environmental monitoring, so it is the need of the hour to make our students skilled and competent in respect of water quality testing. The main objective of this add on course is to equip our students by giving them a hands-on training to check few important parameters of water analysis which will definitely going to help them in their future course of action.

Learning outcome of the course: By completing this course our students will be able to learn the analytical procedures of few important parameters necessary to test water quality. They will also enable to learn the theoretical background of the respective tests as well as the permissible limits of the individual parameters. This course will also develop the ability of our students to improve their analytical skills in respect of data record, data interpretation and their analysis.

Course Details: (Total 32 hours)

The whole course is divided into eight modules of 4 hours each:

Module 1: Determination of pH and Total Dissolved Solids (TDS) of water sample.

Module 2: Determination of total hardness of water sample in parts per million (ppm).

Module 3: Determination of dissolved oxygen (DO) of water sample.

Module 4: Determination of biological oxygen demand (BOD) of water sample.

Module 5: Determination of total alkalinity of water sample.

Module 6: Determination of chlorine content of water sample.

Module 7: Determination of turbidity of water sample using turbidity meter.

Module 8: Determination of Arsenic/Fluoride content of water samples using UV spectrophotometer.

Assessment: Writing and submission of the report on the experiments of different modules of

Certification: Certificates will be provided to each participant on successful completion of

COURSE COORDINATOR: DR. PURABI SARMAH

ASST. PROFESSOR, DEPT. OF CHEMISTRY

NALBARI COLLEGE

ASST. COORDINATOR: DR. PRANITA BORA

ASST. PROFESSOR, DEPT. OF CHEMISTRY

NALBARI COLLEGE

Add-On Course on Dyes and Pigments

Notice for the Course:



OFFICE OF THE PRINCIPAL

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22.	Certificate Course on Disaster Management	Riki Deuri Bharali	Geography
23.	Add on Course on Spoken Sanskrit	Debasis Goswami	Sanskrit
24.	Basics of Ornithology	Dr. Bidyut Kr. Das	Zoology



Syllabus of the Course:



Add-on Certificate Course

Department of Chemistry Nalbari College



Course Title: Dyes and Pigments

Course Duration: 32 Hours

Course Code: CHE-Ad-on-03

Dyes and pigments have played a significant role throughout history, from ancient civilizations to modern times. They are extensively used in various industries such as textiles, cosmetics, food, printing, paints etc. Understanding their properties and applications is crucial for students pursuing careers in these fields. Learning about dyes and pigments introduces students to the principles of organic chemistry, including molecular structures, chemical reactions, and synthesis processes. Many dyes and pigments have environmental implications due to their production processes and potential pollution. Teaching students about these substances helps raise awareness about environmental issues and encourages them to seek more sustainable alternatives.

Objective: To cope up with the demand of New educational policy (NEP) 2020, it is necessary that higher educational institutions should provide some additional skill-based knowledge apart from the traditional subjective knowledge. The main objective of this certificate course is to equip our students with a comprehensive understanding of these substances, their applications, and their implications across scientific, artistic, environmental, and cultural domains.

Learning outcome of the course: By completing this course students will be able to learn about dyes and pigments, differences between them, various sources of natural dyes and pigments and their extraction procedures, advantage and disadvantages of natural dyes. Also, they will be able to learn about synthetic dyes and pigments, advantages vs disadvantages and their industrial applications in various sectors. Students will be able to explore health hazards and environmental impacts caused by synthetic dyeing industries. Moreover, they will be able to acquire some practical knowledge of extraction of dyes from natural sources as well as laboratory preparation of synthetic dyes.

Course Details:

Module I: 6L

Definition, Historical background of dyes and pigments.

Pigments vs Dyes: Understanding the Differences Between Dyes and Pigments

Nomenclature, classification and properties of dyes and pigments. Chemistry of dyes and pigments.

Module II: 6L

Natural Dyes: Definition and sources, extraction methods and their applications.

Classification of natural dyes according to the method of application.

Advantages and disadvantages of natural dyes and Dyeing methods.

Module III: 8L

Synthetic Dyes: Definition, Properties, Types and Classification.

Advantages and disadvantages of synthetic dyes.

Application of Synthetic Dyes in various sectors like Textile, Food, Cosmetics, Pharmaceuticals, Printing, Paints, Dyeing Plastics etc.

Module IV: 3L

Natural and Synthetic pigments: Natural versus Synthetic pigments

Pros and cons of synthetic pigments

Industrial applications

Module V: 3L

Health and environmental hazards of synthetic dyes and pigments

Module VI: 4L

Practicals: (i)Extraction of natural dye from fruits and dyeing of fabric

(ii) Synthesis of azo dyes in the laboratory

Assessment and Certification: 2 hours

COURSE COORDINATOR: Dr. Purabi Sarmah

ASST. PROFESSOR, DEPT. OF CHEMISTRY

NALBARI COLLEGE

ASST. COORDINATOR: Dr. PRANITA BORA

ASST. PROFESSOR, DEPT. OF CHEMISTRY

NALBARI COLLEGE

> DEPARTMENT OF COMPUTER SCIENCE

Add-On Course on Basics of Computer Science

Notice for the Course:

A Welcome Message from the Principal

Dear Students.

It is with great pleasure and enthusiasm that I extend a warm welcome to all of you as we embark on an exciting new journey with the introduction of the add-on course "Basics of Computer Science," offered by the Department of Computer Science here at Nalbari College, Nalbari.

In today's digital age, understanding the fundamentals of computer science is not just advantageous but essential. This course has been meticulously designed to provide you with a solid foundation in computer science principles, equipping you with the skills and knowledge necessary to thrive in a technology-driven world. Whether you aspire to delve deeper into the field of computer science or simply wish to enhance your proficiency in this indispensable area, this course will serve as a valuable stepping stone towards your academic and professional growth.

I commend the Department of Computer Science for their dedication and effort in curating this course. Our esteemed faculty members, with their vast experience and expertise, are committed to delivering a comprehensive and engaging learning experience. They will guide you through the intricacies of computer science, ensuring that you not only understand the theoretical concepts but also gain practical insights and hands-on experience.

As you embark on this new academic endeavour, I encourage you to approach the course with curiosity and enthusiasm. Embrace the opportunity to learn, explore, and challenge yourself. Remember, the skills you acquire here will open doors to numerous possibilities and career postburger.

I am confident that this add-on course will be a significant milestone in your educational journey, enriching your knowledge and broadening your horizons. On behalf of the entire college community, I wish you all the best. May your journey through the "Basics of Computer Science" be enlightening, rewarding, and filled with success.

Welcome aboard, and happy learning!

Sincerely,

Principal Nalbari College, Nalbari



OFFICE OF THE PRINCIPAL NALBARI COLLEGE

ESTD-1945 NALBARI-781335 (ASSAM) Accredited "B+" Grade by NAAC Website: www.nalbaricollege.ac.in E-mail: nalbaricollege1945@gmail.com

Mobile:+9194353-10880

Fax: 03624-220241

Ref. No.:

Date: 09/01/2018

Notice

It is hereby notified that the College is going to introduce the following add-on courses for the academic session 2018-19. Students willing to join the course are asked to contact the following course coordinators for admission into the add-on course.

SI. No	Title of the Add-on Course	Course Co-Ordinator	Department
1.	Add on Course on Fundamentals of Climatology	Girin Deka	Geography
2.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
3.	Yoga –as a part of life	Anjanjyoti Sarma	Physical education & Sports
4.	Spoken English	Dr. Darshana Goswami	English
5.	Digital Financial Literacy	Dr. Subrata Barman	Economics
6.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
7.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology
8.	Women Empowerment	Pallabi Das	Education
9.	Vedic Mathematics	Gautam Sarma	Mathematics

- Baroni (Dr. Dipak Goswami) Nalbari College, Nalbari

Principal Nalbari College, Nalbari Nalbari : Assam





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Ref. No.:

Date: 05/01/2019

Notice

It is hereby notified that Nalbari College is going to introduce the following add-on courses for the academic session 2019-20. Students willing to join the course are asked to contact the following course coordinators for admission into the add-on course.

SI. No	Title of the Add-on Course	Course Co-Ordinator	Department
1.	Basic Astronomy and Sky Observation	Surajit Sarma	Physics
2.	Add On Course on Dharmasastra	Dr. Goutam Choudhury	Sanskrit
3.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
4.	Yoga –as a part of life	Anjanjyoti Sarma	Physical education & Sports
5.	Spoken English	Dr. Darshana Goswami	English
6.	Environmental Awareness (Rising Temperature and Mitigation Measures)	Giren Chandra Deka	Geography
7.	Women Entrepreneurship	Aditi Das	Economics
8.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
9.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology
10.	Travel And Truism Guidance	Pranita Barman	History
11.	Certificate Course on Sustainable Development Goals	Mrs. Binita Devi	Geography
12.	Mathematics in Ancient India	Dr. Mriganka Shekhar Dutta	Mathematics





(Dr. Dipak Kalita) Principal Nalbari College, Nalbari

> Nalbari College, Nalbari Nelberi : Assam



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Ref. No.:

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Notice

It is for the general information of all the students that the College is going to introduce the following add-on courses for the academic session 2021-22. Interested students are asked to contact the respective course coordinators for admission into the course.

SI. No	Title of the Add-on Course	Course Co-Ordinator	Department
1.	Certificate Course on Indian Knowledge System	Dr. Rupasmita Buzarbaruah	Sanskrit
2.	Application of Computer in Social Science	Dr. Bishnu Bhattacharyya	Economics
3.	Fundamental of Electronic and Radio communication	Surajit Sarma	Physics
4.	Translation Studies	Dr. Ranjana Bhattacharyya	English
5.	Learning Some Basic Chemistry Software	Dr. Purabi Sarmah	Chemistry
6.	Human Value and Ethics	Purabi Talukdar	Philosophy
7.	Biofertilizer Preparation	Dr. Gautam Kr. Handique	Botany
8.	Add on Fundamentals of Cartographic Techniques and Remote Sensing	Dr. Darshana Sarma	Geography
9.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
10.	Yoga –as a part of life	Anjan Sarma	Physical Education & Sports
11.	Spoken English	Dr. Darshana Goswami	English
12.	Disaster Management with special reference to Assam (Flood)	Giren Chandra Deka	Geography
13.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
14.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology



(Dr. Kamal Nayan Ratowary) Principal Nalbari College, Nalbari

Nalbari College, Nalba. Nalbari : Assam



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Date: 04/01/2022

Notice

It is for the general information of all the students that the College is going to introduce the following add-on courses for the academic session 2022-23. Interested students are asked to contact the respective course coordinators for admission into the course.

SI. No	Title of the Add-on Course	Course Co-Ordinator	Department
1.	Add on Course on Basics of Manuscriptology and Palaeography	Hemen Kalita	Sanskrit
2.	Women Entrepreneurship	Dr. Aditi Das	Economics
3.	Sampadanar Kala-Koushal	Bhaskar Bhatta	Assamese
4.	Basics of Household Wiring and Earthing system	Surajit Sarma	Physics
5.	Creative writing	Dr. Darshana Goswami	English
6.	Cultivation Techniques of Horticulture Crops	Dr. Gautam Kr. Handique	Botany
7.	Analysis of Water	Dr. Purabi Sarmah	Chemistry
8.	Dyes and Pigments	Dr. Purabi Sarmah	Chemistry
9.	Professional Ethics	Purabi Talukdar	Philosophy
10.	Philosophy of Sankardeva	Purabi Talukdar	Philosophy
11.	Global Issues and Challenges	Binov Musahari	Political Science
12.	Introduction to Options and Future Trading.	Dr. Mriganka Sekhar Dutta	Mathematics
13.	Ethical Hacking	Dhruba Jyoti Mishra	Computer Science
14.	Vermiculture for Organic feeding of Plants, Poultry and Fishes	Kumud Ch. Rabha	Zoology
15.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
16.	Yoga -as a part of life	Anjan Sarma	Physical education & Sports
17.	Spoken English	Dr. Darshana Goswami	English
18.	Major Environmental Issues with Special reference to Assam	Giren Chandra Deka	Geography
19.	Value Education	Kakali Sarma	Education
20.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
21.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology
22.	Certificate Course on Disaster Management	Riki Deuri Bharali	Geography
23.	Add on Course on Spoken Sanskrit	Debasis Goswami	Sanskrit
24.	Basics of Ornithology	Dr. Bidyut Kr. Das	Zoology



(Dr. Kamat Nayan Patowary)
Principal
Nalbari College, Nalbari
Principal
Nalbari College, Nalbari
Nalbari Assam

• Syllabus of the Course:

Introduction to Basics of Computer Science

This introductory course is designed to provide you with a solid foundation in computer science, preparing you for further study and practical application in this dynamic field. Here, we will explore the fundamental concepts that underpin the digital world we live in today.

o What is Computer Science?

Computer Science is the study of computers and computational systems. It involves understanding the theory, development, and application of software and systems that run on computers. This field encompasses a wide range of topics, from algorithms and data structures to artificial intelligence and human-computer interaction.

Course Objectives

- ✓ Understanding the Basics: Grasp the foundational concepts of computer science, including hardware, software, and networks.
- ✓ Problem Solving and Algorithms: Learn how to approach problem-solving using logical and structured thinking, and how to translate solutions into algorithms.

- ✓ Programming Fundamentals: Get introduced to programming languages and write simple programs.
- ✓ Data Management: Understand how data is stored, managed, and manipulated.
- ✓ Computer Systems: Gain insights into the functioning of computer systems, including operating systems and computer architecture.
- ✓ Applications and Impact: Explore the various applications of computer science in real-world scenarios and its impact on society.

Key Topics

- Introduction to Computers
 - ✓ History and evolution of computers
 - ✓ Components of a computer system: CPU, memory, input/output devices
- Operating Systems
 - ✓ Role of operating systems
 - ✓ Basic functions and types of operating systems
- Programming Basics
 - ✓ Introduction to programming languages (e.g., Python, C++)
 - ✓ Writing and executing simple programs
 - ✓ Understanding syntax, variables, data types, and control structures
- Algorithms and Data Structures
 - ✓ Introduction to algorithms: Definition and importance
 - ✓ Basic data structures: Arrays, lists, stacks, and queues
 - ✓ Simple searching and sorting algorithms
- Data Management
 - ✓ Basics of databases
 - ✓ Introduction to SQL and data retrieval
 - ✓ Data storage and file systems
- Networks and Internet
 - ✓ Basics of computer networks
 - ✓ Understanding the internet and its protocols
 - ✓ Cybersecurity fundamentals
- Software Development
 - ✓ Software development life cycle
 - ✓ Introduction to software engineering principles
- Applications of Computer Science
 - ✓ Overview of fields such as artificial intelligence, machine learning, and data science
 - ✓ Impact of computer science on various industries

Course Outcomes:

By the end of this course, you should be able to:

- ✓ Understand the fundamental concepts of computer science.
- ✓ Write and debug simple programs.
- ✓ Explain the role and functions of an operating system.

- ✓ Develop algorithms for basic problems.
- ✓ Describe the structure and functioning of computer networks.
- ✓ Understand the basics of databases and data management

Course Modules:

Module 1:

- ✓ Introduction to Computers
- ✓ History and Evolution
- ✓ Components of a Computer System
- ✓ CPU, Memory, Input/output Devices
- ✓ Basic Computer Operations

Module 2:

- ✓ Operating Systems
- ✓ Functions and Types of Operating Systems
- ✓ Process Management
- ✓ Memory Management

Module 3:

- ✓ Programming Basics
- ✓ Introduction to Programming Languages (e.g., Python)
- ✓ Syntax and Semantics
- ✓ Variables and Data Types
- ✓ Control Structures (if, loops)

Module 4:

- ✓ Algorithms and Data Structures
- ✓ Introduction to Algorithms
- ✓ Basic Data Structures
- ✓ Arrays, Lists, Stacks, Queues
- ✓ Simple Searching and Sorting Algorithms

Module 5:

- ✓ Data Management
- ✓ Introduction to Databases
- ✓ SQL Basics
- ✓ Data Storage and File Systems

Module 6:

- ✓ Networks and Internet
- ✓ Basics of Computer Networks
- ✓ Internet Protocols
- ✓ Cybersecurity Fundamentals

Module 7:

- ✓ Software Development
- ✓ Software Development Life Cycle
- ✓ Introduction to Software Engineering Principles

Module 8:

✓ Applications of Computer Science

- ✓ Artificial Intelligence and Machine Learning Overview
- ✓ Data Science Basics
- ✓ Impact of Computer Science on Various Industries

Programme Features:

- **Comprehensive Curriculum**: Covers computer fundamentals, programming, algorithms, data structures, databases, and networks.
- **Hands-On Learning**: Includes regular coding assignments, lab sessions, and practical projects.
- **Experienced Faculty**: Taught by knowledgeable faculty from the Computer Science department.
- ❖ Interactive Environment: Features discussion forums, guest lectures, and seminars.
- ❖ Modern Facilities: Access to advanced computer labs with the latest technology.
- ❖ Assessment and Feedback: Regular quizzes, tests, and continuous feedback.
- Support and Resources: Study materials, tutoring support, and library access.
- **Career Guidance**: Career counselling and assistance with internships and job placements.
- * Flexible Learning Options: Evening/weekend classes and online resources.

Add-On Course on Ethical Hacking

Notice for the Course:

A Welcome Message from the Principal

Dear Students.

It is with great pleasure that I extend a warm welcome to each of you considering embarking on the journey of ethical hacking. As the Principal of Nalbari College, I am delighted to see your interest in exploring this dynamic and critical field of cyber security.

In today's digital age, where technology permeates every aspect of our lives, the importance of cyber security cannot be overstated. With the increasing frequency and sophistication of cyber threats, organizations across all sectors are seeking skilled professionals who can protect their systems, networks, and data from malicious across.

Ethical hacking, or penetration testing, stands at the forefront of this defense. It is not merely about breaking into systems; rather, it is about understanding vulnerabilities, anticipating threats, and fortifying defenses. Ethical hackers play a pivotal role in safeguarding our digital infrastructure by identifying weaknesses before they can be exploited by cybercriminals.

By choosing to pursue an ethical hacking course, you are not only investing in your own future but also contributing to the collective security of our digital world. Whether you aspire to become a cyber security professional, enhance your technical skills, or simply broaden your knowledge, this course offers a wealth of opportunities for growth and development.

At Nalbari College, we are committed to providing you with the highest quality education and training in ethical hacking. Our experienced faculty, state-of-the-art facilities, and hands-on learning approach ensure that you receive the practical skills and knowledge needed to excel in this field.

I encourage you to seize this opportunity to embark on a rewarding and impactful journey. Together, let us embrace the challenges and possibilities of ethical hacking, as we strive to create a safer and more secure cyberspace for generations to come.

Once again, welcome to Nalbari College, where we empower minds to innovate, lead, and make a difference.

Warm regards,

Sd/-Principal Nalbari College Nalbari



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7.	Analysis of Water	Dr. Purabi Sarmah	Chemistry
8.	Dyes and Pigments	Dr. Purabi Sarmah	Chemistry
9.	Professional Ethics	Purabi Talukdar	Philosophy
10.	Philosophy of Sankardeva	Purabi Talukdar	Philosophy
11.	Global Issues and Challenges	Binoy Musahari	Political Science
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24.	Basics of Ornithology	Dr. Bidyut Kr. Das	Zoology



(Dr. Kama Nayar Patowary Principal Nalbari College, Nalbari Principal Nalbari College, Nalbari Nalbari: Assam

Syllabus of the Course:

Introduction to Ethical Hacking

Ethical hacking, also known as penetration testing or white-hat hacking, is the practice of intentionally testing computer systems, networks, and applications to identify vulnerabilities and weaknesses. Unlike malicious hackers (black-hat hackers) who exploit these vulnerabilities for personal gain or malicious intent, ethical hackers use their skills to improve security measures and protect against cyber threats.

Key Concepts:

Purpose: The primary goal of ethical hacking is to proactively identify and address security weaknesses before they can be exploited by malicious actors. By simulating real-world cyber attacks, ethical hackers help organizations strengthen their defense mechanisms and mitigate potential risks.

Methodology: Ethical hackers employ a variety of tools and techniques to assess the security posture of systems and networks. This may include reconnaissance, vulnerability scanning, penetration testing, social engineering, and more. The approach varies depending on the scope and objectives of the assessment.

Scope: Ethical hacking engagements can range from testing specific applications or networks to conducting comprehensive security assessments of entire organizations. It's essential to define clear boundaries and objectives before initiating any testing activities to ensure legality and ethical conduct.

Ethical Guidelines: Ethical hackers adhere to strict ethical guidelines and legal frameworks while performing their assessments. This includes obtaining proper authorization, respecting privacy and confidentiality, and obtaining consent from stakeholders before conducting any testing activities.

Benefits: Ethical hacking plays a crucial role in improving cyber security posture and fostering a culture of proactive risk management. By identifying and addressing vulnerabilities, organizations can enhance their resilience to cyber threats, protect sensitive data, and maintain customer trust.

Programme Overview:

Objectives: The objectives of an Ethical Hacking course typically revolve around
equipping individuals with the knowledge and skills to identify vulnerabilities and
weaknesses in computer systems and networks, with the ultimate goal of enhancing
security.

Duration: 30 Hours
Start Dates: 14-10-2022
Here are some common objectives:

Understanding Cyber security Fundamentals: Students should gain a solid understanding of cyber security principles, including common threats, attack vectors, and defense mechanisms.

Learning Legal and Ethical Considerations: It's crucial for ethical hackers to operate within legal and ethical boundaries. Courses often cover laws and regulations related to hacking, as well as ethical guidelines and professional codes of conduct.

Mastering Tools and Techniques: Ethical hacking courses typically teach students how to use a variety of tools and techniques commonly employed by hackers, such as network scanning, vulnerability assessment, and penetration testing tools.

Identifying Vulnerabilities: Participants should learn how to identify and exploit vulnerabilities in various systems and applications, including operating systems, web applications, and databases.

Implementing Security Measures: Understanding vulnerabilities is only half the battle. Ethical hackers should also learn how to recommend and implement security measures to mitigate risks and protect against potential attacks.

Performing Penetration Testing: Penetration testing, or pen testing, involves simulating real-world attacks to assess the security of a system or network. Ethical hacking courses often include hands-on labs and exercises to give students practical experience in conducting penetration tests.

Securing Networks and Systems: Beyond finding vulnerabilities, students should learn how to secure networks and systems effectively by implementing best practices in areas such as access control, encryption, and network segmentation.

Risk Assessment and Management: Ethical hackers need to understand the concept of risk assessment and management. This involves evaluating the potential impact of security threats and prioritizing actions to address the most critical risks.

Continued Learning and Adaptation: The field of cyber security is constantly evolving, with new threats and vulnerabilities emerging regularly. Ethical hacking courses should instill a mindset of continued learning and adaptation to stay current with the latest trends and techniques in cyber security.

By addressing these objectives, an Ethical Hacking course aims to provide students with the necessary expertise to ethically and effectively assess and enhance the security posture of organizations and individuals.

Course Overview:

Introduction to Cyber security: Get acquainted with the fundamentals of cyber security, understanding the importance of protecting digital assets and the evolving threat landscape.

Ethical Hacking Ethics and Laws: Explore the legal and ethical considerations surrounding ethical hacking, including relevant laws, regulations, and professional codes of conduct.

Foot printing and Reconnaissance: Learn how hackers gather information about their targets through foot printing and reconnaissance techniques, and discover how to defend against such reconnaissance.

Scanning and Enumeration: Dive into network scanning and enumeration techniques used to identify vulnerabilities and weaknesses in target systems, and learn how to mitigate these risks.

Vulnerability Assessment and Exploitation: Master the art of identifying, assessing, and exploiting vulnerabilities in various systems and applications, and explore methods for responsibly disclosing vulnerabilities to vendors.

Web Application Security: Explore common vulnerabilities found in web applications, such as SQL injection, cross-site scripting (XSS), and CSRF attacks, and learn how to secure web applications against these threats.

Wireless Network Security: Understand the security risks associated with wireless networks, including Wi-Fi and Bluetooth, and explore techniques for securing wireless networks and detecting intrusions.

Penetration Testing: Delve into the world of penetration testing, learning how to plan, execute, and report on penetration tests to assess the security of systems and networks.

Incident Response and Handling: Explore strategies and best practices for incident response and handling, including how to detect, contain, eradicate, and recover from security incidents effectively.

Security Tools and Technologies: Familiarize yourself with a range of security tools and technologies used by cyber security professionals, including penetration testing frameworks, network monitoring tools, and intrusion detection systems.

Cyber security Policies and Procedures: Learn how to develop, implement, and enforce cyber security policies and procedures within organizations to promote a culture of security and compliance.

Continued Learning and Professional Development: Discover resources and strategies for staying current with the latest trends and developments in cyber security, and explore pathways for further professional development and specialization.

Curriculum:

- Module 1: Introduction to Ethical Hacking
- Module 2: Foot printing and Reconnaissance
- Module 3: Scanning Networks
- Module 4: Enumeration and System Hacking
- Module 5: Malware Threats and Countermeasures
- Module 6: Cryptography and Encryption Techniques
- Module 7: Penetration Testing and Reporting

Programme Features:

- Hands-on Training: Practice real-world scenarios in a simulated environment.
- Expert Faculty: Learn from cyber security professionals with industry experience.
- Career Advancement: Gain a competitive edge with practical skills highly sought after by employers.

Admissions and Requirements:

- Eligibility: Basic knowledge of computer systems and networking.
- Application Process: Offline
- Requirements: A variety of tools will be utilized during the engagement, including:
 - ➤ Nmap
 - ➤ Metasploit
 - ➤ Burp Suite
 - Wireshark
 - Nessus
 - ➤ OWASP ZAP

Costs and Financial Aid:

- Tuition Fee: Free of Cost
- Financial Aid: No Scheme at Present

Contact Information:

•Course Coordinator: Mr. Hirakjyoti Barman •Website: www.nalbaricollege.ac.in

Conclusion:

In conclusion, an ethical hacking course offers invaluable knowledge and skills for individuals aspiring to enter the field of cyber security or enhance their existing expertise. Through a structured curriculum and hands-on practical exercises, participants gain a deep understanding of cyber security concepts, methodologies, and tools used by ethical hackers to identify and mitigate security vulnerabilities.

Ethical hacking courses typically cover a wide range of topics, including network security, web application security, penetration testing, cryptography, incident response, and legal and ethical considerations. By mastering these areas, students are equipped with the necessary skills to assess the security posture of organizations, identify potential threats and vulnerabilities, and recommend effective countermeasures to enhance cybersecurity defenses.

Moreover, ethical hacking courses emphasize the importance of ethical conduct and compliance with legal and regulatory requirements. Participants learn to conduct ethical hacking engagements in a responsible and professional manner, respecting the confidentiality and privacy of sensitive information and adhering to industry standards and best practices.

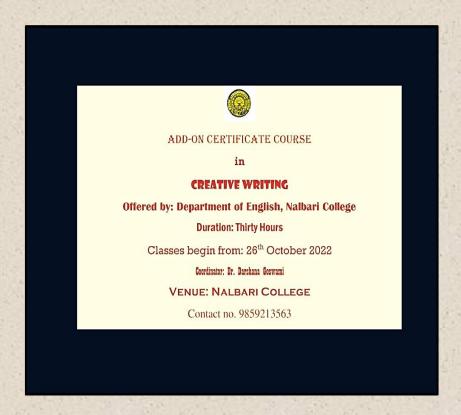
The benefits of completing an ethical hacking course extend beyond individual skill development. Organizations also benefit from employing certified ethical hackers who can help them proactively identify and address security vulnerabilities, protect sensitive data, comply with regulatory requirements, and mitigate the risks associated with cyber threats.

In summary, an ethical hacking course provides individuals with the knowledge, skills, and ethical framework necessary to succeed in the dynamic field of cyber security. By investing in education and training in ethical hacking, individuals and organizations can contribute to a safer and more secure digital environment for all.

> DEPARTMENT OF ENGLISH

Add-On Course on Creative Writing (for UG)

Brochure:



Notice for the Course:



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Rer No No Add-on Certifical Course 2022 420(A)

Date:- 20-10-2022

This is for the information of all concerned that the Add-on Certificate Course in Creative Writing, to be conducted by the Department of English, Nalbari College, will be held from 26th October, 2022 to 12th November, 2022.



Principal Nalbari College, Nalbari Principal Nalbari College, Nalbari Nalbari, Assam

This is for the information of all concerned that the Add-on Certificate Course in Creative Writing, to be conducted by the Department of English, Nalbari College, will be held from 26th October, 2022 to 12th November, 2022.

HOD Dept. of English Nalbari College المبيرة المبي

• Syllabus of the Course:

Syllabus

Add-on Course on

Creative Writing

(For Undergraduate Students)

Course Code: ENG-AC-22

Institution: Nalbari College (affiliated to Gauhati University)

Department offering the course: English

Total no. of class hours: 30

Objectives: the objectives of this course are as follows:

- To enable the students identify the various genres and sub genres of creative writing.
- To enable the students appreciate the nuances of literary language.
- To stimulate the students explore the ideas and feelings and effectively express those in words..

This thirty hour contact course is divided into four units, with each unit focusing on various aspects of Creative Writing, imparting the basic theoretical inputs and then followed by rigorous practice sessions. This syllabus is designed for the under graduate students and each unit is designed keeping in mind the objectives stated above.

The units are as follows:

UNIT I: Poetry (4 hours)

- Forms of Poetry
- Rhetoric and Prosody
- · Figures of speech
- History of Poetry

UNIT II: Fiction (4 hours)

- Novels
- Short Stories
- Components of fiction
- Narratology

UNIT III: Non-fictional Prose (6 hours)

- Essays
- Memoirs
- Travelogues
- Report writing

UNIT IV: Creative writing practice and discussions on various aspects of writing (16 hours)

Suggested readings:

- Egan, Jennifer. How do You Write a Great Work of Fiction
- Hollander, John. Rhyme's Reason, a Guide to English Verse
- Kowit, Steve. In the Palm of Your Hand, the Poet's Portable Workshop

Class schedule of Add-on Certificate Course in Creative Writing

From 26^{th} October, 2022 to 12^{th} November, 2022

Department of English, Nalbari College

Date	Time	Teacher	Room no.
26.10.2022	3.00-4.00 pm	KD	BB-02
27.10.2022	3.00-4.00 pm	RB	BB-02
28.10.2022	3.00-4.00 pm	RD	BB-02
29.10.2022	3.00-4.00 pm	DG	BB-02
31.10.2022	3.00-4.00 pm	GLK	BB-02
01.11.2022	3.00-4.00 pm	PB	BB-02
02.11.2022	3.00-4.00 pm	PM	BB-02
03.11.2022	3.00-4.00 pm	NS	BB-02
04.11.2022	3.00-4.00 pm	KD	BB-02
05.11.2022	3.00-4.00 pm	RB	BB-02
07.11.2022	3.00-4.00 pm	RD	BB-02
09.11.2022	3.00-4.00 pm	DG	BB-02
10.11.2022	3.00-4.00 pm	GLK	BB-02
11.11.2022	3.00-4.00 pm	PB	BB-02
12.11.2022	3.00-4.00 pm	PM	BB-02

Add-On Course on Spoken English

• Brochure:



Department of English, Nalbari College, Introduces an **Add-on Certificate Course**

op

SPOKEN ENGLISH

Duration: Thirty Hours

Classes begin from 20nd April, 2023

Coordínator: Dr. Darshana Goswamí

Venue: Nalbari College contact no. 9859213563

• Notice for the course:



NALBARI COLLEGE, NALBARI

ESTD.: 1945 NALBARI-781335 (Assam) Accredited "B" Grade by NAAC

Website:www.nalbaricollege.ac.inE-mailId:nalbaricollege1945@gmail.com

Ref No Nol Add - on Certificate Course 2023 807(A)

Date: - 10 - 04 - 2023

This is for the information of all concerned that the Add-on Certificate Course in Spoken English, to be conducted by the Department of English, Nalbari College, will be held from 20th April, 2023 to 9th May, 2023.



Principal Nalbari College, Nalbari

> Principal Nalbari College, Nalbari Nalbari, Assam

This is for the information of all concerned that he Add-on Certificate Course in Spoken English, to be conducted by the Department of English, Nalbari College, will be held from 20th April, 2023 to 9th May, 2023.

HOD Dept. of English Naibas: College Dr. Kakali Dutta
Head, Department of English
Nalbari College

Syllabus of the Course:

Syllabus

Add-on Course on

Spoken English

(For Undergraduate Students)

Course Code: ENG-AC-23

Institution: Nalbari College (affiliated to Gauhati University)

Department offering the course: English

Total no. of class hours: 30

Objectives: the objectives of this course are as follows:

- To make the students proficient in Spoken English communication in various formal and
- To help the students communicate in English more intelligibly and effectively.
- Besides spoken English, the course also aims at the overall personality development of the students so that they can face job interviews and conduct their public life activities confidently

This thirty hour contact course is divided into four units, with each unit focusing on various aspects of Spoken English communication, imparting the basic theoretical inputs and then followed by rigorous practice sessions. This syllabus is designed for the under graduate students and each unit is designed keeping in mind the objectives stated above.

The units are as follows:

UNIT I: Introduction to basic English pronunciation (4 hours)

- Vowels
- Consonants
- Syllables
- Stress and Intonation

UNIT II: Informal conversation (4 hours)

- Greeting
- Taking leave
 - Introducing oneself and others
 - Other day to day situations

UNIT III: Formal conversations (6 hours)

- Greeting
- Introducing oneself and others
- Giving presentation and public speech Facing interviews
- Group discussion

UNIT IV: Spoken English practice in different day to day context (16 hours)

Suggested readings:

- Jones, Leo. $Functions\ of\ English$, Cambridge University Press, 2000
- Jones, Leo. International Business English. Cambridge University Press, 2007

Class schedule of Add-on Certificate Course in Spoken English

From 20th April, 2023 to 9th May, 2023

Department of English, Nalbari College

Date	Time	Teacher	Room no.
20.04.2023	3.00-4.00 pm	RB	BB-02
21.04.2023	3.00-4.00 pm	DG	BB-02
22.04.2023	3.00-4.00 pm	KD	BB-02
24.04.2023	3.00-4.00 pm	RD	BB-02
25.04.2023	3.00-4.00 pm	GLK	BB-02
26.04.2023	3.00-4.00 pm	PB	BB-02
27.04.2023	3.00-4.00 pm	PM	BB-02
28.04.2023	3.00-4.00 pm	NS	BB-02
29.04.2023	3.00-4.00 pm	RB	BB-02
02.05.2023	3.00-4.00 pm	DG	BB-02
03.05.2023	3.00-4.00 pm	KD	BB-02
04.05.2023	3.00-4.00 pm	RD	BB-02
06.04.2023	3.00-4.00 pm	GLK	BB-02
08.04.2023	3.00-4.00 pm	PB	BB-02
09.04.2023	3.00-4.00 pm	PM	BB-02

Add-On Course on Translation Studies (for UG)

• Notice for the Course:



NALBARI COLLEGE, NALBARI

ESTD.: 1945 NALBARI-781335 (Assam) Accredited "B" Grade by NAAC

Website:www.nalbaricollege.ac.inE-mailld:nalbaricollege1945@gmail.com

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This is for the information of all concerned that the thirty hour Add-on Certificate Course in Translation Studies, to be conducted by the Department of English, Nalbari College, will be held from 22th October to 10th November,2021.Classes will be conducted both in online and offline modes.



Principal Nalbari College, Nalbari

Principal
Nalbari College, Nalbari
Nalbari, Assam

This is for the information of all concerned that the thirty hour Addon Certificate Course in Translation Studies, to be conducted by the Department of English, Nalbari College, will be held from 22nd October to 10th November, 2021. Classes will be conducted both in online and offline modes.

Kartte 20 10 12 1 Dr. Kakali Dutta Head, Department of English Nalbari College



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NALBARI COLLEGE

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Accredited "B" Grade by NAAC

Website: www.nalbaricollege.ac.in E-mail: nalbaricollege1945@gmail.com

Ref. No.:

Date: 08/01/2021

Mobile:+9194353-10880

Fax: 03624-220241

Notice

It is for the general information of all the students that the College is going to introduce the following add-on courses for the academic session 2021-22. Interested students are asked to contact the respective course coordinators for admission into the course.

SI. No	Title of the Add-on Course	Course Co-Ordinator	Department
1.	Certificate Course on Indian Knowledge System	Dr. Rupasmita Buzarbaruah	Sanskrit
2.	Application of Computer in Social Science	Dr. Bishnu Bhattacharyya	Economics
3.	Fundamental of Electronic and Radio communication	Surajit Sarma	Physics
4.	Translation Studies	Dr. Ranjana Bhattacharyya	English
5.	Learning Some Basic Chemistry Software	Dr. Purabi Sarmah	Chemistry
6.	Human Value and Ethics	Purabi Talukdar	Philosophy
7.	Biofertilizer Preparation	Dr. Gautam Kr. Handique	Botany
8.	Add on Fundamentals of Cartographic Techniques and Remote Sensing	Dr. Darshana Sarma	Geography
9.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
10.	Yoga –as a part of life	Anjan Sarma	Physical Education & Sports
11.	Spoken English	Dr. Darshana Goswami	English
12.	Disaster Management with special reference to Assam (Flood)	Giren Chandra Deka	Geography
13.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
14.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology



(Dr. Kamal Nayan Ratowary)
Principal
Nalbari College, Nalbari
Nalbari College, Najbari

• Syllabus of the Course:

Objectives: the objectives of this course are as follows:

- To make the students aware of the importance of translation in global/national context
- To impart theoretical and practical inputs regarding translation
- To enable the students become skilled translators in various fields and also to assist them in finding employment in translation related jobs

This thirty-hour contact course is divided into five units, with each unit focusing on issues of theoretical and practical aspects of translation along with the importance and challenges of translation. This syllabus is designed for the under graduate students and each unit is designed keeping in mind the objectives stated above.

The units are as follows:

UNIT I: History and landmarks of translation in India and abroad (2 hours)

UNIT II: Modes of translation (3 hours)

- Intralingual, interlingual, intersemiotic translation
- Free translation
- Literal translation
- Transcreation
- Functional aspects of translation
- Audio visual translation

UNIT III: Concepts of translation (2 hours)

• Equivalence, accuracy, loss and gain of translation

UNIT IV: Linguistic aspects of translation (5 hours)

• Syntax, grammar, idiom dialect, idiolect, register

UNIT V: Practical translation activities (18 hours)

Suggested readings:

- Baker, Mona. In Other words: A Coursebook on Translation, Routledge, 2001
- Newmark, Peter. A Textbook of Translation. London: Prentice Hall, 1988
- Toury, Gideon. *Translation across Cultures*. New Delhi: Bahri Publications Private Limited, 1987

> DEPARTMENT OF GEOGRAPHY

Add-On Course on Fundamentals of Climatology

Notice for the Course:



OFFICE OF THE PRINCIPAL NALBARI COLLEGE

Mobile:+9194353-10880 Fax: 03624-220241

ESTD-1945 NALBARI-781335 (ASSAM) Accredited "B+" Grade by NAAC Website: www.nalbaricollegeacin E-mail: nalbaricollege1945@gmail.com

Notice

It is hereby notified that the College is going to introduce the following add-on courses for the academic session 2018-19. Students willing to join the course are asked to contact the following course coordinators for admission into the add-on course.

SI. No	Title of the Add-on Course	Course Co-Ordinator	Department
ī.	Add on Course on Fundamentals of Climatology	Girin Deka	Geography
2.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
3.	Yoga –as a part of life	Anjanjyoti Sarma	Physical education & Sports
4.	Spoken English	Dr. Darshana Goswami	English
5.	Digital Financial Literacy	Dr. Subrata Barman	Economics
6.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
7.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology
8.	Women Empowerment	Pallabi Das	Education
9.	Vedic Mathematics	Gautam Sarma	Mathematics





Syllabus of the Course:



Department of Geography Nalbari College, Nalbari, Assam, Pin-781335



Course Syllabus

Fundamentals of Climatology

Content

Unit 1: Introduction to climate system: Atmosphere and Climate

Unit 2: Radiation and Atmospheric Structure and composition.

Unit 3 : Solar radiation and Global Energy Budget

Unit 4: World Climatic Regions.

Unit 5 : Global Climate-Past, Present and the Future.

Unit 6: Human Footprints on Global warming.

Unit 7: Climate change indicators.

Unit 8: Impact of Climate Change in Urban areas.

Unit 9: Impact of Climate change in Coastal areas.

Unit 10: Climate change and changing livelihood of people. Unit 11: Climate Change and its impact on natural ecosystem.

Unit 12: Mitigation and adaptation to climate change.

Unit 13: Climate change assessment tools.

Unit 14: Conventions on climate change:

International
 National

State and
 Local level initiatives

Unit 15: Group Discussion.

Unit 16: Examination.

Add-On Course on Environmental Awareness (Rising Temperature and **Mitigation Measures**)

Brochure:

ADD ON COURSE ON

ENVIRONMENTAL AWARENESS (RISING TEMPERATURE AND MITIGATION MEASURES)



ORGANISED BY

ENVIRONMENTAL STUDIES NALBARI COLLEGE, NALBARI, ASSAM

SESSION 2019-2020

Notice for the Course:



Ref. No.:

OFFICE OF THE PRINCIPAL

NALBARI COLLEGE

ESTD-1945 NALBARI-781335 (ASSAM)
Accredited "B+" Grade by NAAC
Website: www.nalbaricollege.ac.in E-mail: nalbaricollege1945@gmail.com

Date: 05/01/2019

Mobile:+9194353-10880

Fax: 03624-220241

Notice

It is hereby notified that Nalbari College is going to introduce the following add-on courses for the academic session 2019-20. Students willing to join the course are asked to contact the following course coordinators for admission into the add-on course.

SI. No	Title of the Add-on Course	Course Co-Ordinator	Department
1.	Basic Astronomy and Sky Observation	Surajit Sarma	Physics
2.	Add On Course on Dharmasastra	Dr. Goutam Choudhury	Sanskrit
3.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
4.	Yoga –as a part of life	Anjanjyoti Sarma	Physical education & Sports
5.	Spoken English	Dr. Darshana Goswami	English
6.	Environmental Awareness (Rising Temperature and Mitigation Measures)	Giren Chandra Deka	Geography
7.	Women Entrepreneurship	Aditi Das	Economics
8.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
9.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology
10.	Travel And Truism Guidance	Pranita Barman	History
11.	Certificate Course on Sustainable Development Goals	Mrs. Binita Devi	Geography
12.	Mathematics in Ancient India	Dr. Mriganka Shekhar Dutta	Mathematics





(Dr. Dipak Kalita) Principal Nalbari College, Nalbari

Nalbari College, Nalbari Nalbari : Assam

Syllabus of the Course:



Environmental Studies Nalbari College, Nalbari, Assam, Pin-781335



10. Add On Syllabus:

Course Syllabus

Environmental Awareness (Rising Temperature and Mitigation Measures)

CONTENT

Unit 1: Introduction

- Basic Concept of Environment
- Basics of Environmental Awareness
- Environmental Issues
- Importance of environmental awareness

Unit 2: Temperature

- Basic ideas
- Measurement ideas
- Chronological idea of rising temperature
- Causes , factors responsible for rising temperature
- Impacts of temperature at global, national & local level
- Future problems related to rising temperature

Unit 3: Mitigation measures

- Basics ideas related to temperature control measures
- Role of IPCC
- Role of WCDMP
- CITES

Unit 4: Summary and Conclusion

Unit 5: Group Discussion, Examination, Feedback

Add-On Course on Sustainable Development Goals

Notice for the Course:



OFFICE OF THE PRINCIPAL

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Mobile:+9194353-10880

Ref. No.:

Date: 05/01/2019

Notice

It is hereby notified that Nalbari College is going to introduce the following add-on courses for the academic session 2019-20. Students willing to join the course are asked to contact the following course coordinators for admission into the add-on course.

Sl. No	Title of the Add-on Course	Course Co-Ordinator	Department
1.	Basic Astronomy and Sky Observation	Surajit Sarma	Physics
2.	Add On Course on Dharmasastra	Dr. Goutam Choudhury	Sanskrit
3.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
4.	Yoga –as a part of life	Anjanjyoti Sarma	Physical education & Sports
5.	Spoken English	Dr. Darshana Goswami	English
6.	Environmental Awareness (Rising Temperature and Mitigation Measures)	Giren Chandra Deka	Geography
7.	Women Entrepreneurship	Aditi Das	Economics
8.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
9.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology
10.	Travel And Truism Guidance	Pranita Barman	History
11.	Certificate Course on Sustainable Development Goals	Mrs. Binita Devi	Geography
12.	Mathematics in Ancient India	Dr. Mriganka Shekhar Dutta	Mathematics



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Syllabus of the Course:



Department of Geography Nalbari College, Nalbari, Assam, Pin-781335



Course Syllabus Certificate Course on SUSTAINABLE DEVELOPMENT GOALS

Content

- Unit-1: Defining the concept of Sustainable Development
- Unit 2: Role of United Nations, International agenda and agreements
- Unit 3: Geographic perspectives and sustainable goals
- Unit 4: Economic growth and sustainable goals
- Unit 5: Climate Change and Energy
- Unit 6: Sustainable business practice
- Unit 7: Corporate Social responsibility and corporate governance
- Unit 8: Understanding Population dynamics
- Unit 9: Pattern of Urbanization around the world; Urban problems and challenges
- Unit 10: Aspects of agriculture, public health and food security
- Unit 11: Community participation and community learning
- Unit 12: Status (global and regional); Inclusive growth and poverty reduction
- Unit 13: Qualitative and quantitative assessment of sustainability
- Unit 14: Resource Management
- Unit 15: Risk assessment
- Unit 16: Case studies from India and current challenges
- Unit 17: Urban economy and village economy
- Unit 18: Sustainability and rural culture and tradition
- Unit 19: Inter-relationships and dynamics of ecosystems
- Unit 20: Components of communities
- Unit 21: Scenario of current model of growth and development
- Unit 22: Quality education and Gender equality
- Unit 23: Decent work and economic growth
- Unit 24: Affordable and clean energy
- Unit 25: Responsible consumption and production
- Unit 26: Key climate conference and summit
- Unit 27: Case studies from World; Implementation at international level.
- Unit 28: Group Discussion, Seminar and Examination

Add-On Course on Impact of Corona Virus Pandemic on Air, Economy & Human Health Quality

• Brochure:

ADD ON COURSE ON

IMPACT OF CORONAVIRUS PANDEMIC ON AIR, ECONOMY
AND HUMAN HEALTH QUALITY



ORGANISED BY

ENVIRONMENTAL STUDIES
NALBARI COLLEGE, NALBARI, ASSAM

SESSION 2020-2021

Notice for the Course:



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Mobile:+9194353-1088

Ref. No.:

Date: 15/10/2020

Notice

It is hereby notified that the Nalbari College is going to introduce the following add-on course for the academic session 2020-21. Students willing to join the course are asked to contact the following course coordinator for admission into the add-on course.

SI. No	Title of the Add-on Course	Course Co-Ordinator	Department
1.	Impact of Corona Virus Pandemic on Air, Economy & Human Health Quality	Giren Chandra Deka	Geography



Principal Nalbari College, Nalbari





Syllabus of the Course:



Environmental Studies Nalbari College, Nalbari, Assam, Pin-781335



10. Add On Syllabus:

Course Syllabus

Impact of Corona virus Pandemic on Air, Economy & Human Health Quality

CONTENT

Unit 1: Introduction

- Basic Concepts of Epidemic and Pandemic
- Concept on Corona virus
- Origin and distribution

Unit 2: Impact of Corona virus

- Impact of Corona Pandemic on Air
- Impact of Corona Pandemic on Economy
- Impact of Corona Pandemic on Human Health Quality
- Impacts of Corona Pandemic on global, national & local level livelihood
- Future problems related to the pandemic

Unit 3: Mitigation measures

- Basics ideas to prevent Corona effect
- Global strategies
- Role of WHO and related agencies
- Role of Indian Government
- Vaccination

Unit 4: Summary and Conclusion

Unit 5: Group Discussion, Examination, Feedback

Add-On Course on Fundamentals of Cartographic Techniques and **Remote Sensing**

Notice for the Course:



Ref. No.:

OFFICE OF THE PRINCIPAL NALBARI COLLEGE

NALBARI-781335 (ASSAM)

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Website: www.nalbaricollege.acin E-mail: nalbaricollege1945@gmail.com

Mobile:+9194353-108 Fax: 03624-220241

Date: 08/01/2021

Notice

It is for the general information of all the students that the College is going to introduce the following add-on courses for the academic session 2021-22. Interested students are asked to contact the respective course coordinators for admission into the course.

SI. No	Title of the Add-on Course	Course Co-Ordinator	Department
1.	Certificate Course on Indian Knowledge System	Dr. Rupasmita Buzarbaruah	Sanskrit
2.	Application of Computer in Social Science	Dr. Bishnu Bhattacharyya	Economics
3.	Fundamental of Electronic and Radio communication	Surajit Sarma	Physics
4.	Translation Studies	Dr. Ranjana Bhattacharyya	English
5.	Learning Some Basic Chemistry Software	Dr. Purabi Sarmah	Chemistry
6.	Human Value and Ethics	Purabi Talukdar	Philosophy
7.	Biofertilizer Preparation	Dr. Gautam Kr. Handique	Botany
8.	Add on Fundamentals of Cartographic Techniques and Remote Sensing	Dr. Darshana Sarma	Geography
9.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
10.	Yoga –as a part of life	Anjan Sarma	Physical Education & Sports
11.	Spoken English	Dr. Darshana Goswami	English
12.	Disaster Management with special reference to Assam (Flood)	Giren Chandra Deka	Geography
13.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
14.	Food Nutrition and Dieteties	Dr. Bidyut Kr. Das	Zoology





• Syllabus of the Course:



Department of Geography Nalbari College, Nalbari, Assam, Pin-781335



Course Syllabus FUNDEMENTALS OF CARTOGRAPHIC TECHNIQUES AND REMOTE SENSING

Content

Unit-1: Introduction to the field of Cartography; the art and science of mapping data.

Unit 2: Development of Cartography; Traditional to Modern Cartography

Unit 3: Maps; Types, Content, Scales.

Unit 4: Representation of point, line, area on map

Unit 5: Coordinate System: Shape and size of the earth.

Unit 6: Introduction to thematic Cartography; Concept and Importance

Unit 7: Types and Use of Different thematic map types

Unit 8: Technique of representation of physical and Human data in thematic maps

Unit 9: Map Design and Layout

Unit 10: Concept of Overlay and Mapping in Cartography

Unit 11: Map reading

Unit 12: Map Projection: Concept and types

Unit 13: Classification of different type of Map projection

Unit 14: Choice of Map projection

Unit 15: Techniques of interpretation of topographical Maps



Department of Geography Nalbari College, Nalbari, Assam, Pin-781335



Content

- Unit 16: Aerial and Satellite Remote Sensing
- Unit 17: Use of Satellite Imagery and Aerial photographs for Thematic Maps
- Unit 18: Concept of Digital Cartography
- Unit 19: Elements of Image Interpretation
- Unit 20: Principles of Remote Sensing
- Unit 21: Sensors and Platforms in Remote Sensing
- Unit 22: Concept and Components of GIS
- Unit 23: Types and Structure of Data in GIS
- Unit 24 Data Based Management System
- Unit 25: Extraction of Data and application of GIS
- Unit 26: Seminar Presentation
- Unit 27: Group Discussion
- Unit 28: Examination

Add-On Course on Disaster Management with special reference to Assam (Flood)

• Brochure:

ADD ON COURSE ON

DISASTER MANAGEMENT WITH SPECIAL REFERENCE TO ASSAM (FLOOD)



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NALBARI COLLEGE, NALBARI, ASSAM

SESSION 2021-2022

Notice for the Course:



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Mobile:+9194353-1088 Fax: 03624-220241

Date: 08/01/2021

Notice

It is for the general information of all the students that the College is going to introduce the following add-on courses for the academic session 2021-22. Interested students are asked to contact the respective course coordinators for admission into the course.

SI. No	Title of the Add-on Course	Course Co-Ordinator	Department
1.	Certificate Course on Indian Knowledge System	Dr. Rupasmita Buzarbaruah	Sanskrit
2.	Application of Computer in Social Science	Dr. Bishnu Bhattacharyya	Economics
3.	Fundamental of Electronic and Radio communication	Surajit Sarma	Physics
4.	Translation Studies	Dr. Ranjana Bhattacharyya	English
5.	Learning Some Basic Chemistry Software	Dr. Purabi Sarmah	Chemistry
6.	Human Value and Ethics	Purabi Talukdar	Philosophy
7.	Biofertilizer Preparation	Dr. Gautam Kr. Handique	Botany
8.	Add on Fundamentals of Cartographic Techniques and Remote Sensing	Dr. Darshana Sarma	Geography
9.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
10.	Yoga –as a part of life	Anjan Sarma	Physical Education & Sports
11.	Spoken English	Dr. Darshana Goswami	English
12.	Disaster Management with special reference to Assam (Flood)	Giren Chandra Deka	Geography
13.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
14.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology





• Syllabus of the Course:



Environmental Studies Nalbari College, Nalbari, Assam, Pin-781335



10. Add On Syllabus:

Course Syllabus

Disaster Management with special reference to Assam (Flood)

CONTENT

Unit 1: Introduction

- Basic Concepts of Disaster
- Different types of Disaster
- Responsible Factors

Unit 2: Disaster management Strategies

- Concept of Disaster Management
- · Phases of Disaster Management
- Disaster Management Cycle

Unit 3: Flood Disaster

- Basic concept of Flood
- Causes and Impact of Flood Disaster
- Remedial Measures of Flood Disaster

Unit 4: Flood Disaster in Assam

- Chronology
- Impacts of Flood Disaster in Assam
- Mitigation Measures
- Collaborative approachesFuture remedial models

Unit 5: Summary and Conclusion

Unit 6: Group Discussion, Examination, Feedback

<u>Add-On Course on Major Environmental Issues with Special Reference</u> <u>to Nature of Rainfall in Assam</u>

• Brochure:

ADD ON COURSE ON

MAJOR ENVIRONMENTAL ISSUES WITH SPECIAL REFERENCE TO NATURE OF RAINFALL IN ASSAM



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ENVIRONMENTAL STUDIES
NALBARI COLLEGE, NALBARI, ASSAM

SESSION 2022-2023

• Notice for the Course:



OFFICE OF THE PRINCIPAL

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Mobile:+9194353-10880

Fax: 03624-220241

Notice

It is for the general information of all the students that the College is going to introduce the following add-on courses for the academic session 2022-23. Interested students are asked to contact the respective course coordinators for admission into the course.

Sl. No	Title of the Add-on Course	Course Co-Ordinator	Department
1.	Add on Course on Basics of Manuscriptology and Palaeography	Hemen Kalita	Sanskrit
2.	Women Entrepreneurship	Dr. Aditi Das	Economics
3.	Sampadanar Kala-Koushal	Bhaskar Bhatta	Assamese
4.	Basics of Household Wiring and Earthing system	Surajit Sarma	Physics
5.	Creative writing	Dr. Darshana Goswami	English
6.	Cultivation Techniques of Horticulture Crops	Dr. Gautam Kr. Handique	Botany
7.	Analysis of Water	Dr. Purabi Sarmah	Chemistry
8.	Dyes and Pigments	Dr. Purabi Sarmah	Chemistry
9.	Professional Ethics	Purabi Talukdar	Philosophy
10.	Philosophy of Sankardeva	Purabi Talukdar	Philosophy
11.	Global Issues and Challenges	Binov Musahari	Political Science
12.	Introduction to Options and Future Trading.	Dr. Mriganka Sekhar Dutta	Mathematics
13.	Ethical Hacking	Dhruba Jyoti Mishra	Computer Science
14.	Vermiculture for Organic feeding of Plants, Poultry and Fishes	Kumud Ch. Rabha	Zoology
15.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
16.	Yoga -as a part of life	Anjan Sarma	Physical education & Sports
17.	Spoken English	Dr. Darshana Goswami	English
18.	Major Environmental Issues with Special reference to Assam	Giren Chandra Deka	Geography
19.	Value Education	Kakali Sarma	Education
20.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
21.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology
22.	Certificate Course on Disaster Management	Riki Deuri Bharali	Geography
23.	Add on Course on Spoken Sanskrit	Debasis Goswami	Sanskrit
24.	Basics of Ornithology	Dr. Bidyut Kr. Das	Zoology



(Dr. Kamat Nayan Patowary) Principal Nalbari College, Nalbari *Principal* Nalbari College, Nalbari Nalbari : Assam



Environmental Studies Nalbari College, Nalbari, Assam, Pin-781335



10. Add On Syllabus:

Course Syllabus

Major Environmental Issues with Special Reference to Nature of Rainfall in Assam

Unit 1: Introduction

- Basic Concepts of Environment
- Major Environmental Issues
- Types of Environmental Issues
- Responsible Factors

Unit 2: Rainfall

- Definition, Concept of Rainfall
- Types of Rainfall
- Responsible Factors

Unit 3: Rainfall Distribution

- . Distribution of Rainfall at Global, National & Local scale
- Examples of Regular and Erratic Rainfall Behaviour
- Rainfall as a Factor of Flood havoc
- Maps and Diagrams

Unit 4: Rainfall Distribution in Assam

- ChronologyExamples from Regional aspects
- Maps and Diagrams
- Past and Present Status
- Future Behaviour

Unit 5: Summary and Conclusion

Unit 6: Group Discussion, Examination, Feedback

Add-On Course on Disaster Management

Notice for the Course:



Ref. No.:

OFFICE OF THE PRINCIPAL NALBARI COLLEGE

ESTD-1945
NALBARI-781335 (ASSAM)
Accredited "B" Grade by NAAC
Website: www.nalbaricollege.ac.in E-mail: nalbaricollege1945@gmail.com

Notice

It is for the general information of all the students that the College is going to introduce the following add-on courses for the academic session 2021-22. Interested students are asked to contact the respective course coordinators for admission into the course.

SI. No	Title of the Add-on Course	Course Co-Ordinator	Department	
1.	Certificate Course on Indian Knowledge System	Dr. Rupasmita Buzarbaruah	Sanskrit	
2.	Application of Computer in Social Science	Dr. Bishnu Bhattacharyya	Economics	
3.	Fundamental of Electronic and Radio communication	Surajit Sarma	Physics	
4.	Translation Studies	Dr. Ranjana Bhattacharyya	English	
5.	Learning Some Basic Chemistry Software	Dr. Purabi Sarmah	Chemistry	
6.	Human Value and Ethics	Purabi Talukdar	Philosophy	
7.	Biofertilizer Preparation	Dr. Gautam Kr. Handique	Botany	
8.	Add on Fundamentals of Cartographic Techniques and Remote Sensing	Dr. Darshana Sarma	Geography	
9.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science	
10.	Yoga –as a part of life	Anjan Sarma	Physical Education & Sports	
11.	Spoken English	Dr. Darshana Goswami	English	
12.	Disaster Management with special reference to Assam (Flood)	Giren Chandra Deka	Geography	
13.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics	
14.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology	



(Dr. Kamal Nayan tatowary) Principal Nalbari College, Nalbari

Mobile:+9194353-1088 Fax: 03624-220241

Date: 08/01/2021



Department of Geography Nalbari College, Nalbari Assam, Pin-781335



9. Course Content:

Department of Geography Add on Course syllabus Course title: Certificate Course on Disaster Management

Unit 1: Difference between Hazard and Disaster

Unit 2: Concept of Risk and vulnerability in disasters.

Unit 3: Types of natural disasters

Unit 4: Man made disasters

Unit 5: Case studies of occurrences of various disasters from India and its challenges

Unit 6: Social and Economic impact of disaster

Unit 7: Environmental impact of disasters.

Unit 8: Disaster Management Cycle

Unit 9: Disaster Management Policies.

Unit 10: Building design and construction in highly seismic zones.

Unit 11: Disaster preparedness

Unit 12: Urbanization and disaster risk

Unit 13: Application of GIS and Remote Sensing in disaster management

Unit 14: Group discussion

Unit 15: Examination

> DEPARTMENT OF HISTORY

Add-On Course on Travel and Tourism Guidance

Notice for the Course:



OFFICE OF THE PRINCIPAL

NALBARI COLLEGE

ESTD-1945 NALBARI-781335 (ASSAM) Accredited "B+" Grade by NAAC

Website: www.nalbaricollege.ac.in E-mail: nalbaricollege1945@gmail.com

Mobile:+9194353-10880 Fax: 03624-220241

Ref. No.: Date: 05/01/2019

Notice

It is hereby notified that Nalbari College is going to introduce the following add-on courses for the academic session 2019-20. Students willing to join the course are asked to contact the following course coordinators for admission into the add-on course.

SI. No	Title of the Add-on Course	Course Co-Ordinator	Department
1.	Basic Astronomy and Sky Observation	Surajit Sarma	Physics
2.	Add On Course on Dharmasastra	Dr. Goutam Choudhury	Sanskrit
3.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
4.	Yoga –as a part of life	Anjanjyoti Sarma	Physical education & Sports
5.	Spoken English	Dr. Darshana Goswami	English
6.	Environmental Awareness (Rising Temperature and Mitigation Measures)	Giren Chandra Deka	Geography
7.	Women Entrepreneurship	Aditi Das	Economics
8.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
9.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology
10.	Travel And Truism Guidance	Pranita Barman	History
11.	Certificate Course on Sustainable Development Goals	Mrs. Binita Devi	Geography
12.	Mathematics in Ancient India	Dr. Mriganka Shekhar Dutta	Mathematics

NALBARI (ASOM)

(Dr. Dipak Kalita) Principal Nalbari College, Nalbari

Nalbari College, Nalbari Nelberi : Assam

Important Instructions for Students:

- The Duration of the course is of 30 hours.
- Attendance to all classes are mandatory for all the participants.
- An assessment based on multiple choice questions will be held at the end of the programme.
 Successful candidates will be awarded with certificate of participation.

Course Objective:

The prime objective of this add on course is to provide the undergraduate students the opportunity to go beyond their curriculum and empower them with the basic knowledge of Tourism and allied activities.

Syllabus:

Unit I:

- Tourism Definition, Meaning, Scope and Significance
- Basic Components of Tourism: Accessibility, Attraction and Accommodation

Unit II:

- Physio-graphical divisions, water bodies and climatic conditions
- Important wildlife habitats : Kaziranga, Manas, Orang, Nameri, and Dibru Saikhowa.
- Ancient remains and Important tourist places of Assam

Unit III:

- Tourism planning: The concept, nature, and types of tourism planning, the significance of planning in the tourism industry, and the steps of destination planning
- Transportation: The types of transportation, the relationship between tourism and transport, the role of transport in tourism, and the factors that influence tourist transport selection.

Course Designed By: Pranita Barman, Assistant Professor, Department of History, Nalbari College

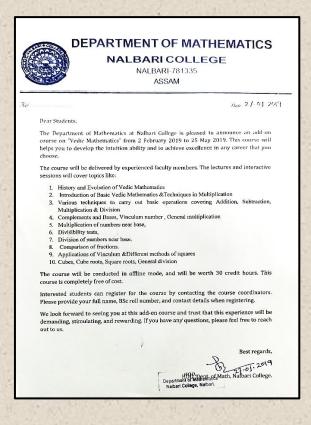
List of Resource Persons

Sl.No	Name of the Faculty	Designation
1	Dr. Pradyumna Sarma	Associate Professor, Department of History, Nalbari College
		Naibaii College
2	Pulak Talukdar	Associate Professor, Department of History,
		Nalbari College
3	Pranita Barman	Assistant Professor, Department of History,
		Nalbari College
4	Champak Goswami	Invited Faculty & Alumnus of the college

> DEPARTMENT OF MATHEMATICS

Add-On Course on Vedic Mathematics

Notice for the Course:



Syllabus of the Course:

Add-on Course in Vedic Mathematics CODE #MAT - ADDOL

Preamble:

<u>Yedic Mathematics</u> is a superfast way of calculation, whereby you can do supposedly complex calculations like 906x998 in less than five seconds flat. It is highly beneficial for school and college students and students who are appearing for their entrance examinations.

Vedic Mathematics is far more systematic, simplified and unified than the conventional system. It is mental tool for calculation that encourages the development and use of intuition and innovation, while giving the student a lot of flexibility, fun and satisfaction. It means giving them a competitive edge, a way to optimize their performance and gives them an edge in mathematics and logic that will help them to shine in the classroom and beyond.

Therefore it's direct and easy to implement in schools- a reason behind its enormous popularity among academicians and students. It is complements the Mathematics curriculum conventionally taught in schools by acting as a powerful checking tool and goes to save precious time in examinations. The methods and techniques are based on the pioneering work of Late Swami Shri Bharati Krishna Tirthaji. Shankaracharya of Puri, who established the system from the study of ancient Vedic texts coupled with a profound insight into the natural process of mathematical reasoning.

There are just 16 Sutras or Word Formulae which solve all Known mathematical problems in the branches of Arithmetic, Algebra, Geometry and Calculus. They are easy to understand, easy to apply and easy to remember.

Benefits of Vedic Maths:

- Eliminates math-phobia
- Increases speed and accuracy.
- More systematic, simplified, unified and faster than conventional system.
- Gives the student flexibility, fun and immense satisfaction.
- · Provides powerful checking tool.
- Save precious time in examination.
- Give the student a competitive edge.
- Develops Left and Right sides of the brains by increasing visualization and concentration abilities.
- Knowledge of Vedic Mathematics will be helpful to crack Numerical Aptitude part for students appearing for competitive Examinations.

Objectives:

- To enable the learners to explore the power of Vedic Mathematics.
- To make learners strong in Numerical Maths.
- To enable learners to recognize and understand simple techniques of Arithmetic Calculations.
- To train learners to use the ideas of Vedic Maths in daily calculations and make those
 calculations with accuracy and speed.

Learning Outcomes:

By successfully completing this course , the learner will be able to :

- Perform simple arithmetic calculations with speed and accuracy.
- Will be able to generate tables of any number
 To perform products of large numbers quickly
- To perform products of large numbers quickly.
- Develop confidence in calculating square roots and cube roots of integers.
- Perform difficult calculations speedly.
- Face Numerical Aptitude part of any Competitive Examination confidently.

Syllabus related to the Add-on Course on Vedic Mathematics :

Total Hours: 30 hours

Module	Detailed Syllabus	Lectures
1	History and Evolution of Vedic Mathematics, Introduction of Basic Vedic Mathematics Techniques in Multiplication(Special Case, Series of 9, Series of 1 etc) Tables etc, Comparison of standard methods with Vedic Methods.	5
2	Various techniques to carry out basic operations covering Addition, Subtraction, Multiplication , Division, Complements and Bases, Vinculum number , General multiplication(Vertically Cross-wise)	5
3	Multiplication of numbers near base, verifying answers by use of digital roots, Divisibility tests, Division of numbers near base, comparison of fractions.	5
4	Applications of Vinculum, Different methods of squares(General method, Base method, Duplex methods etc)	5

5	Cubes, Cube roots, Square roots, General division	5
6	Quadratic Equations, Simultaneous Equations, Use of various Vedic Techniques for answering numerical aptitude questions from Competitive Examinations.	5

Suggested Readings:

- 1) Bhatiya Dhaval, Vedic Mathematics Made Easy, Jaico Publishing House.
- Thakur Rajesh Kumar , Vedic Mathematics for Students taking Competitive Examinations, Unicorn Books 2015 or Later Edition.
- 3) Gupta Atul, Power of Vedic Mathematics with Trigonometry, Jaico Books.
- V.G. Unkalkar, Magical World of Mathematics (Vedic Mathematics) Vandana Publishers, Bangalore.

Evaluation and grading:

Evaluation and grading will be conducted using the following methods:

- Multiple choice choice questions: Multiple choice choice questions will test students
 understanding of basic concepts. These will be conducted regularly in class or through an
 online platform.
- Short answer type questions: Short answer type questions will be used to assess students reasoning and analytical skills. These will be conducted through written tests, online quizzes or Google forms.
- Sudden tests: Surprise tests will be conducted using Google forms to evaluate students knowledge on a specific topic, which will also promote active learning. The response will be automatically graded and shared with the students, providing instant feedback.
- Assignment and projects: Assignment and projects will be designed to test students ability to apply theoretical knowledge.

Grading System:

- 1. Multiple choice choice questions: 20 %
- 2. Short answer type questions: 20 %
- 3. Sudden tests: 20 %
- 4. Assignment and projects: 60 %

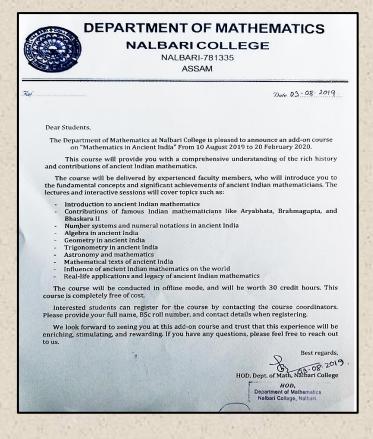
The grading will follow a 3-point scale which is given below:

Grade A \geq 75, Grade B \geq 60 and < 75, Grade B \geq 40 and < 60, Grade D \geq 40 (Fail)

Date	Time	Topic	Instructor
02-02-2019	03:00 - 3:30	Inauguration	PB
	03:30 - 5:00	History and Evolution of Vedic Mathematics	GS
09-02-2019	03:00 - 4:30	Introduction of Basic Vedic Mathematics Techniques in Multiplication(Special Case, Series of 9. Series of 1 etc)	MSD
	04:30 - 5:00	Test 1	MSD
16-02-2019	03:00 - 5:00	Comparison of standard methods with Vedic Methods.	RK
23-02-2019	03:00 - 4:30	Various techniques to carry out basic operations covering Addition, Subtraction, Multiplication.	GS
	04:30 - 5:00	Test 2	GS
02-03-2019	03:00 - 5:00	Various techniques to carry out basic operations covering Division, Complements and Bases.	MSD
09-03-2019	03:00 - 4:30	Vinculum number, General multiplication(Vertically Cross-wise)	RK
	04:30 - 5:00	Test 3	RK
16-03-2019	03:00 - 5:00	Multiplication of numbers near base, verifying answers by use of digital roots.	GS
23-03-2019	03:00 - 4:30	Divisibility tests, Division of numbers near base.	MSD
	04:30 - 5:00	Test 4	MSD
30-03-2019	03:00 - 5:00	Cubes, Cube roots.	RK
06-04-2019	03:00 - 5:00	Square roots, General division	GS
20-04-2019	03:00 - 4:30	Quadratic Equations. Simultaneous Equations.	MSD
	04:30 - 5:00	Test 5	MSD
27-04-2019	03:00 - 5:00	Use of various Vedic Techniques for answering numerical aptitude questions from Competitive Examinations.	RK
04-05-2019	03:00 - 4:30	comparison of fractions.	GS
	04:30 - 5:00	Test 6	GS
11-05-2019	03:00 - 5:00	Use of various Vedic Techniques for answering numerical aptitude questions from Competitive Examinations.	MSD
18-05-2019	03:00 - 4:00	Use of various Vedic Techniques for answering numerical aptitude questions from Competitive Examinations.	RK
	04:00 - 5:00	Final Test	RK
25-05-2019	03:00 - 5:00	Ending and Certificate Distribution	Chief Par

Add-On Course on Mathematics in Ancient India

Notice for the Course:



Add-On Course

Course Name: Mathematics in Ancient India

Course Code: NC-MAT-ADDO2

The Choice Based Credit System(CBCS) aims to provide students with diverse educational opportunities beyond traditional academic courses. Offering Mathematics in Ancient India" as an Add-on Course for B. Sc students can be a good initiative as it can equip students with the knowledge of historical development of mathematics in ancient India. While implementing the program, the following points are considered:

- Faculty: The program is developed and taught by qualified and experienced faculty members of Mathematics, History and Sanskrit department of Nalbari College.
- **2. Curriculum:** The curriculum is designed to cover the historical development of mathematics in ancient India. The curriculum will also provide opportunities to explore the influence of Indian mathematics on global and modern mathematics.
- 3. Certification: Students who complete the program will be eligible for certification from Nalbari College.

By implementing add-on courses in "History of Indian mathematics", universities and colleges can appreciate contributions of prominent Indian mathematicians. It can also give the students opportunity to study key ancient Indian mathematical texts.

Syllabus for a course in Mathematics in Ancient India for B. Sc students:

Objectives:

- Understand the historical development of mathematics in ancient India.
- Study key ancient Indian mathematical texts.
- Appreciate contributions of prominent Indian mathematicians.
- Explore the influence of Indian mathematics on global and modern mathematics.

Learning Outcomes:

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

- Describe major mathematical contributions of ancient Indian mathematicians.
- Analyze mathematical concepts in ancient texts.
- Evaluate the influence of Indian mathematics on other cultures and modern studies.
- Apply ancient techniques to solve contemporary problems.

Unit 1: Introduction to Ancient Indian Mathematics

- Historical context and overview of ancient Indian civilization
- Importance of mathematics in Indian culture
- Development of numeral systems (Brahmi, Gupta, decimal)
- Basic arithmetic operations and early number theory
- The concept of zero
- Introduction to Vedic Mathematics: Basic arithmetic and geometry in the Sulba Sutras
- Introduction to Jain Mathematics: Key concepts like infinity, transfinite numbers, and combinatorics

Unit 2: Indian Mathematics in the Classical Period

- Arvabhata: Life, works, contributions to algebra, trigonometry, and astronomy
- Aryabhatiya: Key content and structure
- Brahmagupta: Zero, negative numbers, quadratic equations
- Bhaskara I: Commentaries and advancements in trigonometry

Unit 3: Later Developments and Kerala School of Mathematics

- Bhaskara II: Life and contributions to calculus and trigonometry
- Lilavati and Bijaganita: Mathematical problems, solutions, and theories
- Kerala School of Mathematics: Historical context and key figures (Madhava, Nilakantha, etc.)
- Contributions to calculus and trigonometry
- Infinite series and the development of pi

Unit 4: Global Influence and Applications

- Transmission of Indian mathematics to the Islamic world and Europe
- Influence on the development of modern mathematics
- Practical applications of ancient Indian mathematics in various fields
- Influence of Indian mathematics on other cultures and modern studies.

Assessment

- Weekly quizzes and assignments (40%)
- Midterm examination (30%)
- Class participation and discussion (30%)

Recommended Reading:

- 1. "Mathematics in India" by Kim Plofker
- 2. "The History of Ancient Indian Mathematics" by C.N. Srinivasiengar
- 3. Selected readings from ancient texts such as Aryabhatiya, Brahmasphutasiddhanta, and Lilavati

Evaluation and grading:

Evaluation and grading will be conducted using the following methods:

- Multiple Choice Questions: Multiple Choice Questions (MCQs) will test students' understanding of basic concepts. These will be conducted regularly in class or through an online platform.
- 2. Short Answer Type Questions: Short Answer Type Questions will be used to assess students' reasoning and analytical skills. These will be conducted through written tests, online quizzes or Google Forms.
- 3. Sudden Tests: Surprise tests will be conducted using Google Forms to evaluate students' knowledge on a specific topic, which will also promote active learning. The responses will be automatically graded and shared with the students, providing instant feedback.

Grading System:

- Multiple Choice Questions: 25%
- Short Answer Type Questions: 25%
- Sudden Tests: 20%
- Assignments: 30%

The grading will follow a 5-point scalewhich is given below:

A+	A	B	C	D	F
90-100	80-90	70-80	60-70	50-60	Below 50

Add-On Course

Mathematics in Ancient India

CLASS SCHEDULE:

Date	Time	Topic/Test	Instructor
	01:00-02:00	Inauguration	Chief Patron
10-08-2019	02:00-03:00	Historical context and overview of ancient Indian civilization	PB
	03:00-04:00	Importance of mathematics in Indian culture	GS
17-08-2019	01:00-02:30	Development of numeral systems (Brahmi, Gupta, decimal)	RK
	02:30-04:00	Basic arithmetic operations and early number theory	MSD
	04:00-05:00	Test-1	RK
24-08-2019	01:00-03:00	Introduction to Vedic Mathematics: Basic arithmetic and geometry in the Sulba Sutras	GS
	03:00-04:00	The concept of zero	RK
	04:00-05:00	Introduction to Jain Mathematics: Key concepts like infinity, transfinite numbers, and combinatorics	RK
07-09-2019	01:00-02:30	Aryabhata: Life, works, contributions to algebra, trigonometry, and astronomy	PB
	02:30-04:00	Aryabhatiya: Key content and structure	MSD
	04:00-05:00	Brahmagupta: Zero, negative numbers, quadratic equations	MSD
19-10-2019	01:0-02:30	Bhaskara I: Commentaries and advancements in trigonometry	PB
	02:30-04:00	Bhaskara II: Life and contributions to calculus and trigonometry	RK
	04:00-05:00	Lilavati and Bijaganita: Mathematical problems, solutions, and theories	GS
02-11-2019	01:00-02:30	Kerala School of Mathematics: Historical context and key figures (Madhava, Nilakantha, etc.)	GS
	02:30-04:00	Contributions to calculus and trigonometry	RK
	04:00-05:00	Test-3	PB
	01:30-02:30	Infinite series and the development of pi	MSD
09-11-2019	02:30-04:00	Transmission of Indian mathematics to the Islamic world	GS
	04:00-05:00	Transmission of Indian mathematics to the Islamic world and European countries through the Islamic world	PB C
16-11-2019	01:00-02:00	Influence on the development of modern mathematics	GS

M			
	02:00-03:00	Practical applications of ancient Indian mathematics in various fields	MSD
	03:00-04:00	Influence of Indian mathematics on other cultures and modern studies.	PB
25-01-2020	11:00-1:00	Final Test	MSD
20-02-2020	11:00-12:00	Ending and Certificate Distribution	Chief Patron

Class hours:

PB: 7 hours, GS: 8 hours, MSD: 8.5 hours, RK: 7.5 hours.

Total course hours: 33 hours.

Add-On Corse on Introduction to Options and Future Trading

Notice for the Course:



DEPARTMENT OF MATHEMATICS NALBARI COLLEGE, NALBARI

ESTD.: 1945 NALBARI- 781335 (Assam) Accredited "B" Grade by NAAC

Web site: www.nalbaricollege.ac.in E-mail ld: nalbaricollege1945@gmail.com

Date: 7/10/2022

The Department of Mathematics at Nalbari College is pleased to announce an add-on course on "Introduction to Options and Futures Trading" from 15 October 2022 to 29 May 2023. This course will provide you with fundamental knowledge in trading and the tools to understand options and futures contracts.

The course will be delivered by experienced faculty members, who will introduce you to the basics of options and futures trading and the associated mathematics of the derivatives markets. The lectures and interactive sessions will cover topics like:

- Understanding the basics of options and futures trading
 Types of options available in the market
 Types of futures available in the market

- 4. Mathematics used in options and futures trading
- 5. Options pricing models 6. Futures pricing models
- Hedging strategies using options and futures
 Risk management in options and futures trading
 Introduction to algorithmic trading

10. Real-life examples of options and futures trading.

The course will be conducted in offline mode, and will be worth 30 credit hours. This course

is completely free of cost.

Interested students can register for the course by contacting the course coordinators. Please provide your full name, BSc roll number, and contact details when registering.

We look forward to seeing you at this add-on course and trust that this experience will be demanding, stimulating, and rewarding. If you have any questions, please feel free to reach out to

HOD, Dept. of Math, Nalbari College. HOD, Department of Math

Add-On Course

Course Name: Introduction to Options and Futures Trading

Course Code: MAT-AC-01 NC-MAT-ADD03

- The Choice Based Credit System(CBCS) aims to provide students with diverse educational opportunities beyond traditional academic courses. Offering options and futures trading as a add-on course for B. Sc students can be a good initiative as it can expand their knowledge and skills in the field of finance and business. While implementing the program, the following points are considered:
- Faculty: The program is developed and taught by qualified and experienced faculty members who have expertise in finance and trading.
- Curriculum: The curriculum is designed to cover the basics of options and futures trading, including market analysis, risk management, and trading strategies. The curriculum will also provide opportunities for hands-on experience through simulations and real-world scenarios.
- Resources: Adequate resources, including trading platforms, market data, and analytical tools, will be made available to students to support their learning.
- 4. Certification: Students who complete the program will be eligible for certification from Nalbari College. After successful completion of the program the students can go for certification course from recognized institutions, such as the National Stock Exchange (NSE) and the Bombay Stock Exchange (BSE).
- By implementing add-on courses in finance and business, universities and colleges can equip students with practical knowledge and skills relevant to the industry. It can also prepare students for various career opportunities in the financial sector, including investment banking, risk management, and trading, among others.
- Syllabus for a course in Introduction to Options and Futures Trading for B. Sc students:

Objectives

- To provide students with a comprehensive understanding of the basics of options and futures trading.
- To bring awareness of the benefits and risks associated with trading in options and futures markets.
- To develop practical skills necessary to analyze, evaluate, and trade in such markets,
 Considering their relevance in the current global economy.

To encourage entrepreneurship and risk-taking abilities among students.

Learning Outcomes:

After completing this add-on course, students should be able to:

- . $\ensuremath{\mathsf{Understand}}$ the fundamental concepts of options and futures trading and different types of trading strategies.
- . Evaluate the risks associated with trading in these markets and learn about how to $_{\mbox{\scriptsize manage}}$ these risks.
- . Develop appropriate tactics to analyze and evaluate various securities to make informed decisions while trading in options and futures.
- . Gain practical skills in trading activities and create trading strategies.
- Construct trading models to evaluate and gain insights for investment decision-making.
- Leverage trading knowledge and practical skills towards entrepreneurial ventures.

Unit 1: Introduction to Financial Markets

- Meaning, types, and functions of financial markets
- Introduction to primary and secondary markets
- Overview of the stock, debt, and commodity markets

Unit 2: Options Trading

- Overview of options and their types
- Understanding the pricing of options
- Strategies for buying / selling options
- Hedging techniques using options

Unit 3: Future Trading

- Understanding futures contracts and their types
- Pricing futures contracts
- Hedging techniques for futures
- Applications of futures contracts in trading and risk management

Unit 4: Technical and Fundamental Analysis

- Learning about technical analysis tools like candlestick patterns, moving averages, and oscillators
- Fundamental analysis of stock and commodity markets
- . Using market analysis to identify trading opportunities

Unit 5: Trading Psychology and Risk Management

- Understanding the psychology of traders
- Managing risks in trading
- Techniques for monitoring and managing trading positions
- Using stop losses and other risk management tools

Unit 6:Trading Simulation and Project Work

- Simulation exercises that provide students with practical experience in trading
- Preparing trading strategies and executing them in a virtual environment
- Project work that requires students to analyze and evaluate trading strategies

Note:This syllabus can be modified as per the specific needs of the program and the institution. However, focusing on practical skills and providing hands-on experience to students can be a crucial element of this course.

Here are some recommended simple textbooks for an introduction to options and futures trading:

- 1. "Options Made Easy" by Guy Cohen This book is a beginner-friendly guide to trading options. It focuses on the basics of options trading such as pricing, strategies, and risk management. It contains a lot of visual aids, charts, and graphs that make it easy to follow.
- 2. "Future Smart" by James Canton This book is a comprehensive guide to futures trading. It covers topics such as how futures work, how to trade futures, and how to manage risk. The book uses simple language and real-life examples to explain how to invest in the futures market.
- 3. "Financial Derivatives" by Robert W. Kolb and James A. Overdahl This book is a comprehensive guide to options and futures trading. It covers topics such as the history of options andfutures trading, how to trade options and futures, and how to manage risk. The book uses clear and simple language, making it easy to understand.

These textbooks are excellent resources for those who are interested in options and futures trading, particularly for beginners who want an introduction to the topic in simple language with clear visuals and examples.

Evaluation and grading:

Evaluation and grading will be conducted using the following methods:

- 1. Multiple Choice Questions: Multiple Choice Questions (MCQs) will test students' understanding of basic concepts. These will be conducted regularly in class or through an online platform.
- 2. Short Answer Type Questions: Short Answer Type Questions will be used to assess students' reasoning and analytical skills. These will be conducted through written tests, online quizzes or Google Forms.
- 3. Sudden Tests: Surprise tests will be conducted using Google Forms to evaluate students' knowledge on a specific topic, which will also promote active learning. The responses will be automatically graded and shared with the students, providing instant feedback.
- 4. Assignments and Projects: Assignments and projects will be designed to test students' ability to apply theoretical knowledge to real-world scenarios, such as financial statement analysis, portfolio selection, and risk management. These will be evaluated based on quality, depth, and creativity.
- 5. Trading Competition: Trading competitions will help students apply their theoretical knowledge in a simulated environment. To assess the students' performance, a performance metric tracking system, such as market return relative to a benchmark will be set up.

Grading System:

- Multiple Choice Questions: 20%
- Short Answer Type Questions: 20%
- Sudden Tests: 10%
- Assignments & Projects: 30%
- Trading Competition: 20%

The grading will follow a 5-point scalewhich is given below:

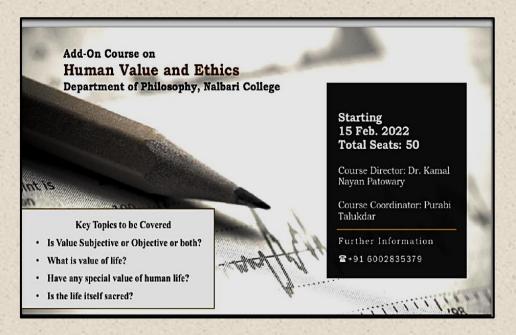
A+	A	В	С	D	F
90-100	80-90	70-80	60-70	50-60	Below 50

90-100, 75-90 60-75 60-40 Belin 40

> DEPARTMENT OF PHILOSOPHY

Add-On Course on Human Value and Ethics

Brochure:



Notice for the Course:



OFFICE OF THE PRINCIPAL

NALBARI COLLEGE

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Website: www.nalbaricollege.ac.in E-mail: nalbaricollege1945@gmail.com

Ref. No.:

Date: 08/01/2021

Notice

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SI. No	Title of the Add-on Course	Course Co-Ordinator	Department
1.	Certificate Course on Indian Knowledge System	Dr. Rupasmita Buzarbaruah	Sanskrit
2.	Application of Computer in Social Science	Dr. Bishnu Bhattacharyya	Economics
3.	Fundamental of Electronic and Radio communication	Surajit Sarma	Physics
4.	Translation Studies	Dr. Ranjana Bhattacharyya	English
5.	Learning Some Basic Chemistry Software	Dr. Purabi Sarmah	Chemistry
6.	Human Value and Ethics	Purabi Talukdar	Philosophy
7.	Biofertilizer Preparation	Dr. Gautam Kr. Handique	Botany
8.	Add on Fundamentals of Cartographic Techniques and Remote Sensing	Dr. Darshana Sarma	Geography
9.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
10.	Yoga –as a part of life	Anjan Sarma	Physical Education & Sports
11.	Spoken English	Dr. Darshana Goswami	English
12.	Disaster Management with special reference to Assam (Flood)	Giren Chandra Deka	Geography
13.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
14.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology



(Dr. Kamal Nayan Ratowary Principal Nalbari College, Nalbari Principal Neibari College, Neiba-Najbari Assam

4. Overall Details of the Course:

Course name: Human Value and Ethics

Course Code: PHIADD101

Description of the Course

The add-on course in Human Values and Ethics offers a comprehensive exploration of fundamental concepts and diverse perspectives crucial for ethical decision-making and personal growth. The course introduces students to the significance of values and ethics, exploring intrinsic and extrinsic value distinctions and various philosophical theories. This course expands students' perspectives by examining cultural, societal, and philosophical viewpoints on human life values. Through this exploration, students develop critical thinking skills and empathy, essential for navigating ethical complexities in a globalized society. The course objectives aim to equip students with the tools for ethical decision-making and promote cross-cultural understanding, fostering respect for diverse perspectives. Ultimately, the course plays a pivotal role in shaping individuals into ethical leaders and responsible members of society, emphasizing the importance of moral integrity and values-based decision-making in personal and professional contexts.

Syllabus showing each unit against class number:

Unit	Unit Content	No of Classes
I	 Values and Ethics - An Introduction Intrinsic and Extrinsic Value Different Philosophical Theories of Value 	15
П	 Values of Human Life Its Different Perspectives 	15

❖ Reading List

Holmes, R.L. Introduction to Applied Ethics

Mackenzie, J.N. Manual of Ethics

Moore, G.E. Ethics

Pujari, Bandana Pachatyya Darsanat Abhumuki

Singer, Peter Applied Ethics Singer, Peter Practical Ethics

Sinha, Jadunath Introduction to Philosophy

❖ Graduate Attributes

- . Course Outcome
 - Students will develop a nuanced understanding of intrinsic and extrinsic values.
 - Students will comprehend the foundational principles of various philosophical theories of value.
 - · Students will gain insight into the diverse values associated with human life.
- Students will be able to critically evaluate different perspectives on the value of human life.
- ii. Course Objectives
 - To introduce students to the concept of intrinsic and extrinsic value and its significance in various domains.
 - To familiarize students with key philosophical theories of value and their implications for ethical decision-making.
 - To explore the multifaceted values associated with human life from different philosophical, medical, economic and ethical perspectives.
 - To encourage critical thinking and analytical skills in evaluating the value of human life from diverse viewpoints.
 - To foster ethical reasoning and reflection on personal and societal values in relation to human life.

❖ Course Duration 30 Hours❖ No. of Required Classes 30

* Curriculum developer

- Course Director: Dr. Kamal Nayan Patowary, Principal
- Course Coordinator: Purabi Talukdar, HoD, Department of Philosophy,
- Course Designer: Purabi Talukdar and Manomati Deka, Assistant Prof.
- Faculty: All Faculty members of Department of Philosophy
 - i. Purabi Talukdar
 - ii. Dr. Malaya Borah
 - iii. Manomati Deka
 - iv. Rajasri Goswami

Add-On Course on Professional Ethics

• Brochure:



Add-On Course on Professional Ethics

offered by Department of Philosophy, Nalbari College

Topics to be Covered

- What is Profession?
- What is Professional Ethics?
- Professional and Ethical Standard
- What is the importance of Professional Ethics?

Starting 26 September 2022

Fotal Seats: 50

Course Director: Dr. Kamal Nayan Patowary Course Coordinator: Purabi Talukdar

Further Information +91 6002835379

• Notice for the Course:



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Sl. No	Title of the Add-on Course	Course Co-Ordinator	Department
1.	Add on Course on Basics of Manuscriptology and Palaeography	Hemen Kalita	Sanskrit
2.	Women Entrepreneurship	Dr. Aditi Das	Economics
3.	Sampadanar Kala-Koushal	Bhaskar Bhatta	Assamese
4.	Basics of Household Wiring and Earthing system	Surajit Sarma	Physics
5.	Creative writing	Dr. Darshana Goswami	English
6.	Cultivation Techniques of Horticulture Crops	Dr. Gautam Kr. Handique	Botany
7.	Analysis of Water	Dr. Purabi Sarmah	Chemistry
8.	Dyes and Pigments	Dr. Purabi Sarmah	Chemistry
9.	Professional Ethics	Purabi Talukdar	Philosophy
10.	Philosophy of Sankardeva	Purabi Talukdar	Philosophy
11.	Global Issues and Challenges	Binoy Musahari	Political Science
12.	Introduction to Options and Future Trading.	Dr. Mriganka Sekhar Dutta	Mathematics
13.	Ethical Hacking	Dhruba Jyoti Mishra	Computer Science
14.	Vermiculture for Organic feeding of Plants, Poultry and Fishes	Kumud Ch. Rabha	Zoology
15.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
16.	Yoga –as a part of life	Anjan Sarma	Physical education & Sports
17.	Spoken English	Dr. Darshana Goswami	English
18.	Major Environmental Issues with Special reference to Assam	Giren Chandra Deka	Geography
19.	Value Education	Kakali Sarma	Education
20.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
21.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology
22.	Certificate Course on Disaster Management	Riki Deuri Bharali	Geography
23.	Add on Course on Spoken Sanskrit	Debasis Goswami	Sanskrit
24.	Basics of Ornithology	Dr. Bidyut Kr. Das	Zoology



(Dr. Kamar Nayan Patowary)
Principal
Nalbari College, Nalbari
Principal
Nalbari College, Nalbari
Nalbari : Assam

4. Overall Course Details

Course Name: Professional Ethics
Course code: PHIADD102

Description of the Course

The course on "Professional Ethics" provides students with a comprehensive understanding of ethical principles and standards essential for their chosen profession. Through lectures, discussions students delve into topics such as the significance of ethical conduct, the scope of professional ethics, and codes of conduct specific to their field. By examining real-world scenarios and ethical dilemmas, students develop critical thinking skills and learn to apply ethical frameworks to complex situations they may encounter in their careers. The course emphasizes the importance of integrity, accountability, and responsible decision-making in professional practice. Overall, it equips students with the knowledge and skills necessary to navigate ethical challenges with confidence and uphold the highest standards of conduct in their respective professions.

Syllabus showing each unit against class number:

Unit	Unit Content	No of Classes
I	Ethics and Profession - An Introduction Professional Ethics Scope of Professional Ethics	15
II	Ethical Codes and Standards Importance of Professional Ethics	15

Reading List

Holmes R. L. Introduction Applied Ethics
Piet John. H. An Introduction to Applied Ethics

R. Subramanian Professional Ethics Singer, P. Applied Ethics

Suresh Jayshree Human Values and Professional Ethics

Sundar Swapna Professional Ethics: Ethical Excellence for Professional

Success

Graduate Attributes

i. Course Outcome

Upon completion of the course, students will be able to:

- Understand and apply ethical principles in their professional practice.
- Analyse ethical dilemmas and make informed decisions.
- Demonstrate knowledge of codes of conduct relevant to their profession.
- ii. Course Objectives
 - To introduce students to the concept of professional ethics.
 - To explore the scope and importance of professional ethics.
 - To familiarize students with codes of conduct applicable to their profession.
 - To develop critical thinking and decision-making skills in ethical contexts.

❖ Course Duration 30 Hours
 ❖ No. of Required Classes 30

* Curriculum developer

- Course Director: Dr. Kamal Nayan Patowary, Principal
- Course Coordinator: Purabi Talukdar, HoD, Department of Philosophy,
- Course Designer: Purabi Talukdar and Manomati Deka, Assistant Prof.
- Faculty: All Faculty members of Department of Philosophy
 - i. Purabi Talukdar
 - ii. Manomati Deka
 - iii. Rajasri Goswami

Add-On Course on Philosophy of Sankardeva

Brochure:



Add-On Course on Philosophy of Sankardeva

offered by Department of Philosophy, Nalbari College

Topics to be Covered

- What is the Neo-Vaishnavite movement, and how did Sankaradeva influence its development?
- How does Sankaradeva conceptualize Brahman in his philosophical teachings?
- What ethical principles and values did Sankaradeva promote in his teachings, and how did they manifest in his social reform efforts?
- In what ways did Sankaradeva's cultural and literary contributions shape Assamese

Starting 1 March 2023

Total Seats: 80

Course Director: Dr. Kamal Navan Patowary

Course Coordinator: Purabi Talukdar

Further Information

+91 6002835379

Notice for the Course:



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5.	Creative writing	Dr. Darshana Goswami	English
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7.	Analysis of Water	Dr. Purabi Sarmah	Chemistry
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13.	Ethical Hacking	Dhruba Jyoti Mishra	Computer Science
14.	Vermiculture for Organic feeding of Plants, Poultry and Fishes	Kumud Ch. Rabha	Zoology
15.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
16.	Yoga –as a part of life	Anjan Sarma	Physical education & Sports
17.	Spoken English	Dr. Darshana Goswami	English
18.	Major Environmental Issues with Special reference to Assam	Giren Chandra Deka	Geography
19.	Value Education	Kakali Sarma	Education
20.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
21.	Food Nutrition and Dieteties	Dr. Bidyut Kr. Das	Zoology
22.	Certificate Course on Disaster Management	Riki Deuri Bharali	Geography
23.	Add on Course on Spoken Sanskrit	Debasis Goswami	Sanskrit
24.	Basics of Ornithology	Dr. Bidyut Kr. Das	Zoology



(Dr. Kamar Nayah Patowary) Principal Nalbari College, Nalbari Principal Nalbari College, Nalbari Nalbari : Assam

Course Name: Philosophy of Sankaradeva

Course Code: PHIADD201

. Description of the Course

This course offers an interdisciplinary examination of the life, teachings, and sociocultural impact of Sankaradeva within the context of the Neo-Vaishnavite movement in medieval India. Through a combination of historical analysis, philosophical inquiry, and sociological perspectives, students will gain a comprehensive understanding of Sankaradeva's philosophical contributions and their significance in shaping Assamese society.

Syllabus showing each unit against class number:

Unit	Unit Content	No of
		Classes
I	 Life and Contribution of Sankardeva 	15
	Neo-Vaishnavite Movement	
	Concept of Brahman	
П	Advaita Vedanta and Sankardeva Philosophy	15
	Ethics of Sankardeva	
	 Sankardevas Contribution to Assamese Society 	

❖ Reading List

Barman, Sivnath Srimanta Sankardev: Kriti aru Krititva

Bezbaroa, Lakshminath Mahapurush Sri Sri Sankaradeva aru Sri Sri

Madhavadev

Borkakoti, Sanjib Kumar Jugadrastha Srimanta Sankaradeva-Madhavdea

Choudhury, Sumitra Philosophy of Sanakardeva

Gohain, Hiren Asamiya Jatiya Jibanat Mahapurusiya Parampara

Gohain, Hiren Sankardeva Sandarshan Lekhar, Upendra Chandra Katha Gurucharit Neog, Maheswar Sri Sri Sankardeva

Thakur, Daityari Mahapurush Sree Sree Sankardeva-Madhavdeva Charit

Graduate Attributes

- i. Course Outcome
 - Gain a comprehensive understanding of Sankaradeva's life and contributions within the Neo-Vaishnavite movement.
 - Analyze and critically evaluate Sankaradeva's philosophical ideas, including his concept of Brahman and synthesis of Advaita Vedanta.
 - Explore the ethical dimensions of Sankaradeva's teachings and their implications for social reform and spiritual morality.
 - Assess the impact of Sankaradeva's philosophy on Assamese society, including language, literature, and cultural practices.
 - Develop interdisciplinary research and analytical skills through engagement with primary texts, historical sources, and scholarly literature.

ii. Course Objectives

- Explore the life, teachings, and socio-religious contributions of Sankaradeva.
- Examine the historical and philosophical context of the Neo-Vaishnavite movement.
- Analyze Sankaradeva's interpretation of Advaita Vedanta and its divergence from mainstream Vedantic thought.
- Evaluate the ethical principles advocated by Sankaradeva and their application in individual and societal contexts.
- Assess the enduring legacy of Sankaradeva's contributions to Assamese society and culture.

❖ Course Duration
 ❖ No. of Required Classes
 30 Hours
 30

* Curriculum developer

- Course Director: Dr. Kamal Nayan Patowary, Principal
- Course Coordinator: Purabi Talukdar, HoD, Department of Philosophy,
- Course Designer: Purabi Talukdar, Assistant Prof.
- Faculty: All Faculty membes of Department of Philosophy

iv. Purabi Talukdar

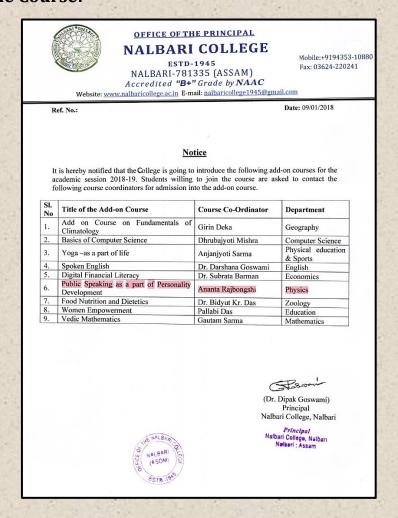
v. Manomati Deka

vi. Rajasri Goswami

> DEPARTMENT OF PHYSICS

Add-On Course on Public Speaking as a Part of Personality Development

Notice for the Course:



Syllabus of the Course:

Add-on Course Course Code: ADD-PS-1802 Public Speaking as a Part of Personality Development

Credit: 02 Contact Hour: 30

Course Objective:

Among the several management skills, the most important one is the communication skills. Leadership qualities lies in developing confidence and poise in communication and can be developed through training in the Art of Public Speaking, Communication Skill and Personality Development.

Syllabus:

Introduction to Public Speaking, Overcoming the stage fear: Glossophobia, Connecting the audience, Communication skills, breaking the ice and creating credibility, Ethics of Public Speaking, Speaking on the Spot, Emotional Intelligence, Content creation and Organization, Etiquettes: Dressing, Table manners, office or personal, Nonverbal communication, Body language, Presentation skills, Discussion, Debate and Group discussion, Storytelling and Speech drafting. Use of Technology in Public Speaking.

Course Outcome:

This course will help participants to communicate better and speak with confidence with individuals, officials, participate actively in meetings, and conferences. The course will help a person to develop a confident personality and get along well with others by developing their inter-personal and intra-personal communication skills.

Add-On Course on Basics of Household Wiring and Earthing System

• Brochure:

SESSION:2024

NALBARI COLLEGE, NALBARI DEPARTMENT OF PHYSICS



FOR
ADD-ON COURSE
ON

"BASICS ON HOUSEHOLD WIRING AND EARTHING SYSTEM"

Notice for the Course:



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24.	Basics of Ornithology	Dr. Bidyut Kr. Das	Zoology



(Dr. Kama Nayan Patowary) Principal Nalbari College, Nalbari Principal Nalbari College, Nalba Nalbari : Assam

Syllabus of the Course:

COURSE DESIGN

- Title of the course: Basics on household wiring and earthing system
- $\boldsymbol{\div}$ Course Outcome: Upon completion of this course, students will be able to understand the basic circuit diagram in different kinds of electronic appliances, able to find out the faulty components in the given electronic equipment, able to remove faulty components and insert new components in the circuit for functioning of the equipment and understand the domestic wiring and maintenance.

Unit I. Introduction to the Electrician Trade

- Scope of Electrician Trade House Wiring
- Employment opportunities
- Dangers from misuse of electrical appliances and equipment
- Responsibilities of Electricians and Wiremen

Introduction to Electricity and Electric Power Unit II.

- Definitions and Units
- Static and Dynamic Electricity
 Direct Current (DC) and Alternating Current (AC)
- Voltage Levels in AC
- Advantages of AC

Electromagnetism and Common Electrical Appliances Unit III.

- Application of Electromagnetism in Electric Appliances Principles of AC Generators and Motors Various Electrical Appliances

- Measurement Methods of Electrical Parameters
- Measuring Instruments of Electrical Parameters

Unit IV. Safety Requirements

- General safety steps Safety signs Electrical Safety

- Hazards of Electricity (Fire Hazard, Electric Shock)
- Indian Electricity Rules and Indian Electricity Act

Unit V. Earthing

- Importance of Earthing Basic Considerations of Earthing
- Measurement of Soil Resistivity
 Types of Ground Connections (Pipe Earthing, Plate Earthing)
- **Ground Testing**

- 1. Extension Board designing.
- 2. Measure the load in different rooms.
- Demonstration
 - 1. Home earthing.
 - 2. Home wiring

. Project

- 1. Construction of electronic equipment
- 2. Students will go to nearby community for repairing of domestic appliances and will submit a detailed report.

Course objective:

- o Understanding the different components in electronics appliances
- Understanding the domestic wiring and designing of layout
- o Checking and repairing of electronic components
- Prerequisite: Current under graduate students having science in class 12.

- Contact hours: 30 hrs. (Daily 1 class having duration of two hrs. One hrs. theory and one hrs. practical)
- Assessment process and grading: (a) Attendance, (b) Internal and final assessment and (c) Practical.
- Course coordinator: Prof. Surajit Sarma, Assistant professor, Department of Physics, Nalbari College, Nalbari.

Add-On Course on Fundamentals of Electronic and Radio Communication

• Brochure:

SESSION:2024

NALBARI COLLEGE, NALBARI DEPARTMENT OF PHYSICS



COURSE DESIGN FOR ADD-ON COURSE ON

"FUNDAMENTAL OF ELECTRONIC AND RADIO COMMUNICATION"

• Notice for the Course:



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4.	Translation Studies	Dr. Ranjana Bhattacharyya	English
5.	Learning Some Basic Chemistry Software	Dr. Purabi Sarmah	Chemistry
6.	Human Value and Ethics	Purabi Talukdar	Philosophy
7.	Biofertilizer Preparation	Dr. Gautam Kr. Handique	Botany
8.	Add on Fundamentals of Cartographic Techniques and Remote Sensing	Dr. Darshana Sarma	Geography
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10.	Yoga –as a part of life	Anjan Sarma	Physical Education & Sports
11.	Spoken English	Dr. Darshana Goswami	English
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14.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology



(Dr. Kamal Nayan Ratowary)
Principal
Nalbari College, Nalbari

Nalbari College, Nalba. Nalbari : Assam

COURSE DESIGN

- Title of the course: Fundamental of electronic and radio communication
- Course Outcome: Upon completion of this course, students will be able to understand electronic and radio communication Standards along with the understanding of communication systems.

Radio Signal Basics: Unit I.

- Understanding electromagnetic waves 0
- Propagation of radio waves 0
- Frequency, wavelength, and amplitude 0
- Modulation techniques (AM, FM, PM)
- Demodulation

Unit II. Radio Systems and Components

- Types of radio systems (VHF, UHF, HF)
- Antennas and their characteristics
- Transmitters and receivers
- Duplexing (half-duplex, full-duplex)
- Simplex communication Definitions and Units

Unit III. Propagation and Line-of-Sight

- Line-of-sight communication
- Factors affecting radio signal propagation Reflection, diffraction, and scattering
- Tropospheric ducting and ionospheric propagation

Antenna Characteristics and Propagation Unit IV.

- Understand antenna principles, directivity, and gain.
- Explore radio wave propagation, path loss, and fading. Learn about multipath and its alleviation using MIMO (multi-antenna) technology.

Radio Interference and Noise Unit V.

- Sources of interference
- Noise figure and signal-to-noise ratio
- Techniques to mitigate interference

· Books

- Introduction to Radio Frequency Design by Wes Hayward, Rick Campbell, and Bob Larkin
- o The ARRL Handbook for Radio Communications (published annually by the American Radio Relay League)

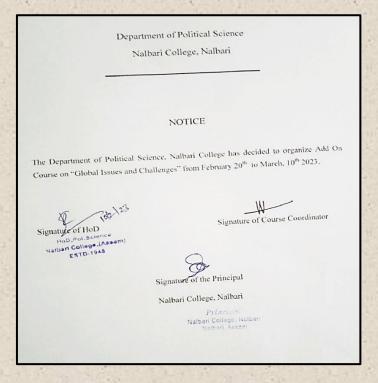
. Course objective:

- Understanding the basic electronic communication.
- Understanding the components of communication like antenna, modulator, etc.
- * Prerequisite: Current under graduate students having science in class 12.
- ❖ Course fee: Nil
- ❖ Intake capacity: 30
- Contact hours: 30 hrs. (Daily 1 class having duration of one hrs.)
- * Assessment process and grading: (a) Attendance, (b) Internal and final assessment and
- * Course coordinator: Dr. Nipan Mazumdar and Dr. Dhruba Jyoti Gogoi, Assistant professor, Department of Physics, Nalbari College, Nalbari.

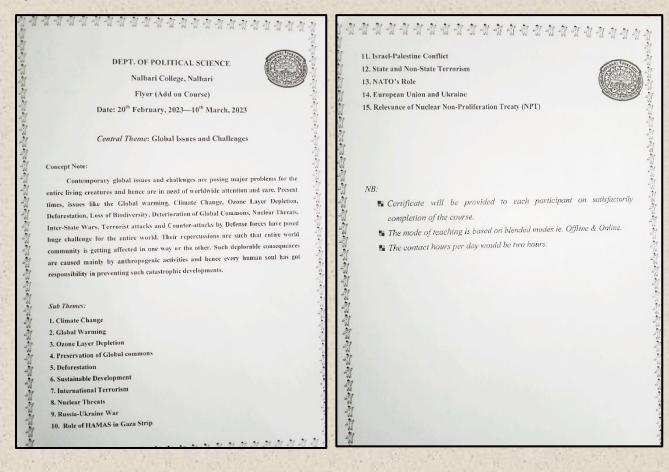
> DEPARTMENT OF POLITICAL SCIENCE

Add-On Course on Global Issues and Challenges

• Notice for the Course:



• Syllabus of the Course:



DEPARTMENT OF SANSKRIT

Add-On Course on Dharmaśāstra

Notice for the Course:



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1.	Basic Astronomy and Sky Observation	Surajit Sarma	Physics
2.	Add On Course on Dharmasastra	Dr. Goutam Choudhury	Sanskrit
3.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
4.	Yoga –as a part of life	Anjanjyoti Sarma	Physical education & Sports
5.	Spoken English	Dr. Darshana Goswami	English
6.	Environmental Awareness (Rising Temperature and Mitigation Measures)	Giren Chandra Deka	Geography
7.	Women Entrepreneurship	Aditi Das	Economics
8.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
9.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology
10.	Travel And Truism Guidance	Pranita Barman	History
11.	Certificate Course on Sustainable Development Goals	Mrs. Binita Devi	Geography
12.	Mathematics in Ancient India	Dr. Mriganka Shekhar Dutta	Mathematics





Syllabus of the Course:

DEPARTMENT OF SANSKRIT : NALBARI COLLEGE

Syllabus and Course Outcome

Add on Course on Dharmaśāstra

Course Code- SKT-Add on/2019

(30 hours duration)

The learning outcome of the course 'Dharmasastra' is to create among the students a strong impact on various fields of Indian culture and tradition with special reference to Assam. It enlightens the students about the rich tradition and heritage of India. It also gives them opportunities at any level of research.

Syllabus:-

Unit - I

Introduction to Dharmaśāstra - Meaning and scope

10 hours

Rāmāyaṇa, Mahābhārata, Gitā

10 hours

Kāmrūpa school of Dharmaśāstra

10 hours

Suggested Books -

- Sharma, N.R.- The Kāmrūpa school of Dharmaśāstra, Punthi Pustak, Calcutta,1994
- Kane, P.V.-History of Dharmaśāstra
- Swain B. K.- Dharmaśāstra : An Introduction

Add-On Course on Indian Knowledge System

Notice for the Course:



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Ref. No.:

Date: 08/01/2021

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1.	Certificate Course on Indian Knowledge System	Dr. Rupasmita Buzarbaruah	Sanskrit
2.	Application of Computer in Social Science	Dr. Bishnu Bhattacharyya	Economics
3.	Fundamental of Electronic and Radio communication	Surajit Sarma	Physics
4.	Translation Studies	Dr. Ranjana Bhattacharyya	English
5.	Learning Some Basic Chemistry Software	Dr. Purabi Sarmah	Chemistry
6.	Human Value and Ethics	Purabi Talukdar	Philosophy
7.	Biofertilizer Preparation	Dr. Gautam Kr. Handique	Botany
8.	Add on Fundamentals of Cartographic Techniques and Remote Sensing	Dr. Darshana Sarma	Geography
9.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
10.	Yoga –as a part of life	Anjan Sarma	Physical Education & Sports
11.	Spoken English	Dr. Darshana Goswami	English
12.	Disaster Management with special reference to Assam (Flood)	Giren Chandra Deka	Geography
13.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
14.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology





Nalbari College, Nalba Nalbari : Assam

Syllabus of the Course:

DEPARTMENT OF SANSKRIT : NALBARI COLLEGE Syllabus and Outcome for Add on Course
Indian Knowledge System
Course Code- Add on /SKT-01
(30 hours duration)

Course Outcome -

The objective of this course is acquiring general ideas on ancient Indian knowledge system that prevails in traditional teaching and learning processes through the vedic texts. The students will be able to understand the basics of Indian traditional knowledge.

Introduction to the Vedic literature: General structure of the Vedic Literature- Mantra, Brahmana, Aranyak, Upanisad. Philosophical Ideas and Ethics in Upanisads- Puruṣārtha, Varņa Dharma, Brahman and Ātman, Mokṣa.

Essence of Indian Knowledge- Bhagavadgītā: Jñānayoga, Karmayoga and Bhaktiyoga.

Introduction to Yoga and Ayurveda: Origin and development of Patanjali Yoga, Ayurveda with special reference to Carakasamhita, Integrated Approach to Holistic Health Care.

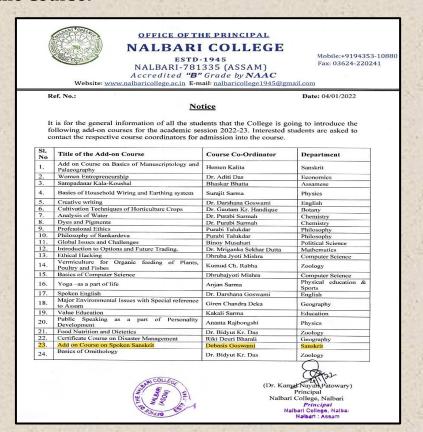
Suggested Readings:

- 1. Griffith, R. T. H, Rgveda, Motilal Banarshidass, New Delhi, Reprint- 2015
- $\textbf{2.} \quad \textbf{Chakravarthy, G.N.} \ \textit{The Concept of Cosmic Harmony in the Rg-Veda}. \ \textbf{Bangalore:}$ NagasriBook House, 2005.
- Gambhirananda, Swami. Eight Upanishads: With the Commentary of Shankaracharya. Advaita Ashrama, Kolkata, 2010.
 4. Panda, N. C. Bhagavad Gita: A New Exposition in a Broader Spectrum. New
- Delhi: D.K.Print world Ltd. 2009.

- Radhakrishnan, S. *The Bhagavadgita*. USA: Harper Collins, 2011. Radhakrishnan, S. *The Principal Upanishads*. USA: Harpercollins, 2006. Kapoor, Kapil, Avadesh Kr. Singh (eds.) *Indian Knowledge Systems* (Two Vols), IIAS, Shimla, 2005.

Add-On Course on Spoken Sanskrit

• Notice for the Course:



• Syllabus of the Course:

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Add on cowise
                                         Addon-SKT-OZ Spoken Sansbrit.
                    Syllabus
  Unit-I
   * पश्चियः (अमनाम / अवतः / अवत्या)
  * अत्र सत्र अन्यत उक्तर सबीत सुप्त
  * किम् कवा, कुत्र ,काते, कुत्तः कथम, किमयम्?
  * संख्या
  * पूरतः पृष्ठतः वामतः स्थितः उपरि , अधः
  * वासर:
 * अदय साः परस्व प्रपरस्वः ह्यः परध्यः प्रपरस्यः।
 * वसा-दर्शनम
 * शब्द परिचयः
 * पारायणम् (शब्दरपः धातुरूपः)
 * उप-सः, इतत- तत्रा उपा-सा
*
Learning autcome:
1. To appreciate the value of Sanskrit language.
2. To acquire the basic concepts of Sanskrit Grammon.
3. Students cried gain knocaledge about the sanskri words
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Add-On Course on Basics of Manuscriptology and Palaeography

Notice for the Course:



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1.	Add on Course on Basics of Manuscriptology and Palacography	Hemen Kalita	Sanskrit
2.	Women Entrepreneurship	Dr. Aditi Das	Economics
3.	Sampadanar Kala-Koushal	Bhaskar Bhatta	Assamese
4.	Basics of Household Wiring and Earthing system	Surajit Sarma	Physics
5.	Creative writing	Dr. Darshana Goswami	English
6.	Cultivation Techniques of Horticulture Crops	Dr. Gautam Kr. Handique	Botany
7.	Analysis of Water	Dr. Purabi Sarmah	Chemistry
8.	Dyes and Pigments	Dr. Purabi Sarmah	Chemistry
9.	Professional Ethics	Purabi Talukdar	Philosophy
10.	Philosophy of Sankardeva	Purabi Talukdar	Philosophy
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13.	Ethical Hacking	Dhruba Jyoti Mishra	Computer Science
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18.	Major Environmental Issues with Special reference to Assam	Giren Chandra Deka	Geography
19.	Value Education	Kakali Sarma	Education
20.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
21.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology
22.	Certificate Course on Disaster Management	Riki Deuri Bharali	Geography
23.	Add on Course on Spoken Sanskrit	Debasis Goswami	Sanskrit
24.	Basics of Ornithology	Dr. Bidyut Kr. Das	Zoology



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Nalbari : Assam

Syllabus of the Course:

DEPARTMENT OF SANSKRIT : NALBARI COLLEGE

Syllabus and Outcome

Add on Course

Basics of Manuscriptology and Palaeography

Course Code- Add on/SKT-03

(30 hours duration)

Course Objectives:

This course aims to acquaint the students with the epigraphical journey in Sanskrit, the only source which directly reflects the society, politics, geography and economy of the time. The course also seeks to help students to know the different styles of Sanskrit writing.

Unit I

MANUSCRIPTOLOGY

Introduction to Manuscript and Inscriptions

Importance of Indian Inscriptions in the reconstruction of Ancient Indian History and Culture

History of Epigraphical Studies in India with special reference to Assam

Unit – II

PALEOGRAPHY

Introduction to Ancient Indian Scripts, Antiquity of the Art of Writing, Writing Materials, Inscribers and Library, Dubi Copper Plates of Bhāskaravarman, Parbatiya Copper Plates of Vanamalavarmadeva

Unit – III

Practical -

Decipherment of some selected Manuscripts of Assam

Page 2 of 2

Recommended Books/ Readings

- 1. Mukunda Madhava Sharma, Inscriptions of Ancient Assam, Gauhati .University, 1978
- 2. Select Inscriptions (Vol.I) D.C. Sircar, Calcutta, 1965.
- 3. Dani, Ahmad Hasan: Indian Paleography, Oxford, 1963.
- 4. Pillai, Swami Kannu& K.S. Ramchandran :Indian Chronology

(Solar, Lunar and Planetary), Asian Educational Service, 2003.

5. Satyamurty, K.: Text Book of Indian Epigraphy, Lower Price Publication, Delhi, 1992

> DEPARTMENT OF ZOOLOGY

Add-On Course on Food Nutrition and Dietetics

Notice for the Course:



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Date: 09/01/2018

It is hereby notified that the College is going to introduce the following add-on courses for the academic session 2018-19. Students willing to join the course are asked to contact the following course coordinators for admission into the add-on course.

SI. No	Title of the Add-on Course	Course Co-Ordinator	Department
1.	Add on Course on Fundamentals of Climatology	Girin Deka	Geography
2.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
3.	Yoga –as a part of life	Anjanjyoti Sarma	Physical education & Sports
4.	Spoken English	Dr. Darshana Goswami	English
5.	Digital Financial Literacy	Dr. Subrata Barman	Economics
6.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
7.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology
8.	Women Empowerment	Pallabi Das	Education
9.	Vedic Mathematics	Gautam Sarma	Mathematics



(Dr. Dipak Goswami) Principal Nalbari College, Nalbari





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Date: 05/01/2019 Ref. No.:

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14.	Vermiculture for Organic feeding of Plants, Poultry and Fishes	Kumud Ch. Rabha	Zoology
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24.	Basics of Ornithology	Dr. Bidyut Kr. Das	Zoology



(Dr. Kamat Nayan Patowary) Principal Nalbari College, Nalbari Principal Nalbari College, Nalbar Nalbari : Assam

Proposed syllabus/ curriculum for an "Add-on Course".

Department of Zoology

Title: FOOD NUTRITION AND DIETETICS
Duration of the course: 30 hours
Model Syllabus Author: Dr Bidyut Kumar Das
Credit: 02 (Theory)
Course Fee: Rs.100
Course Code: ZOO-AC-03
Eligibility: Candidates for admission to this Add—on course "Food
Nutrition and Dietetics" shall be required to have passed the Higher
Secondary Examinations conducted by the Government of Assam or any other equivalent examination. No. of Students: 100 Session: 2018-2019



Programme/Course overview: The objective of Add on program in Food Nutrition and Dietetics emphasizes on the fundamentals of Food and Nutrition. As Food science is a farreaching discipline that applies the pure science subjects of chemistry, biology and nutrition to the study of the nature, properties, and composition of foods, nutritional constituents, commodities, food quality and deterioration, food preservation, product development, basics of Human physiology, nutrition during lifetime, food hygiene and sanitation, food service management, quality control in food industries and food service institutions and functional foods as part of the syllabi. The program endeavors to provide students with broad-based knowledge and training in Food Science and Nutrition to provide a solid background of basic concepts as well as exposing them to the exciting advancements in the field. They are competent to explore the field of Food and Nutrition widening their scope in areas of Food Industry, Nutritionist, Disease specific Therapist and much more.

How is the Nutrition and Dietetics course beneficial?

- 1. Provide and equip students with understanding of food Science and nutrition with evidencebased approach
- $2.\ {\rm Equip}$ students with knowledge and understanding of modern aspects of nutritional science and novel food usage.
- 3. Train on innovative recipe development applying the science of food.
- Serve in core food industry, which leverages diverse food science domains including food biotechnology, product development, safety & quality control. 5. Harness the skills required to be an efficient entrepreneur.
- 6. Perform in applied mutrition fields including public health and diet therapy.
- 7. Build competent professionals in the field of food industry, health care sector to address
- 8. Enable students to confidently pursue higher studies and research.
- 9. Gain an understanding to enable independency to access, analyze and plan nutritional management for disease and critical condition.
- 10. Develop feasible solutions against major nutrition related health issues in country.
- 11. Develop confidence to implement nutrition education program in community.
- 12. Open a window in the field of food microbiology, quality control.
- 13. Create competitive nutritionists in various fields hospitals, health care sectors, sports nutrition and food service institutions.

Details syllabus of proposed Add-on Course (Food Nutrition and Dietetics):

SL NO	Course content/ Course code	Course Outcomes	No of lectures/	Knowledge level	Total
1	Unit1: Module1: Definition of food, nutrition, health:	1.To impart in-depth knowledge in the area of Food, Nutrition and its relation		K-1, K-2	hours
	a)Introduction: Food & its relation to health, objectives in the study of nutrition. b)BMR Defination, diet induced thermogenesis c)History of nutrition, understanding relationship between food, nutrition and health d) Food groups and their nutritional value Module2: Macronutrients and Micronutrient. a) Protein, Carbohydrate and Fat- Classification and functions, Digestion & absorption (in burief), dietary fiber- types and functions, Vitamins and Minerals		5 Lectures	K-1, K-2	30

2	Unit 2: Module 3: Factors influencing food Intake and food habits: a) Physiologic factors that determine food intake, Environmental and behavioral factors influencing food acceptance. b) Functions of food-Physiological, psychological and social	6.Recognize bow fundamental biochemical principles and reactions are utilized in biochemical processes. 7.Explain the macronutrients and micronutrients important for the body. 8.Familiarise with biochemical aspects in clinical context. 9.Train the students the importance of good mutrition in combating the ill effects of metabolic alterations.	5 Lectures	K-1, K-2, K-3, K-4
3	Unit 3: Module 4: Nutrition for life cycle and planning of Diet: a) Nutritional assessment- Direct and indirect methods b) Nutritional requirements for	Understanding, critically assessing and knowing how to use and apply information sources related to nutrition, food, lifestyle and health. Being familiar with nutrients,	6 Lectures	K-1, K-2, K-3

growing children and adult and elderty. c) Basic principles of planning diet, Dietary guddelines for Indians and food pyramid, and balanced diets, regular diet and rationale for modifications in energy and other nutrients, texture, fluids, soft diets etc.	their function in an organism, bioavailability, requirements and recommended quantities, as well as the bases of energetic and nutritional balance. 12. Interpreting a mutritional diagnosis, evaluating mutritional aspects of a clinical record and implementing a dietary treatment plan. 13. Nutrure knowledge about the significance of fitness and exercise			
Module 5: Nutritional management: a) Definition, importance of balanced diet, RDA for various nutrients- age, gender, physiological state, food group system factors affecting meal	14. Sensitize learners to the common mutriional disorders effecting vulnerable groups in our country and strategies to manage them. 15. Impart knowledge of mutrition and lifestyles to enable prevention and management of diseases. 16. Develop skills of communication to assist in advocacy and dissemination of knowledge to	8 Lectures	K-1, K-2, K-3, K-4,K-5,K-6	

	planning.	community.	
b) Nutritional deficiency disease-		
	causes, symptoms, treatment,	17. Understand the nutrients in terms of	
	protein energy mulnutritrion,	changes during digestion, absorption etc.	
	Vitamin A deficiency, Iron		
	deficiency anemia, Iodine	10 Puchus C. J. autum	
	deficiency disorders, Zinc	18. Perform food system management and leadership functions that consider	
	deficiency, Fluorosis, Lactose		
	intolerance, constipation,		
	Diarrhoea, Food allerfy and		
	food intolerance.		
c) National Nutrition Policy and		
	Program- Integrated Child		
	Development Services Scheme,		
	Mid-day Meal Program,		
	National Programs for		
	prevention of Anemia.		

	Methods of Assessment
Remembering	The lowest level of questions require students to recall information from
(K-1)	the course content
	 Knowledge questions usually require students to identify information in the textbook
Understanding	Understanding of acts and ideas by comprehending organizing,
(K-2)	comparing, translating, interpolating and interpreting in their own words.
	The questions go beyond simple recall and require students to
	combine data together
Application	Students have to solve problems by using / applying a concept
(K-3)	learned in the classroom
	Students must use their knowledge to determine exact response.
Analyze (K-4)	Analyzing the question is one that asks the students to breakdown
	something into its component parts.
	Analyzing requires students to identify reasons causes or motives
	and reach conclusions or generalizations.
Evaluate (K-5)	Evaluation requires an individual to make judgment on something.
	Questions to be asked to judge the value of an idea, a character, a
	work of art, or a solution to a problem.
	Students are engaged in decision-making and problem-solving.
	Evaluation questions do not have single right answers.
Create (K-6)	The questions of this category challenge students to get engaged in
	creative and original thinking.
	Developing original ideas and problem solving skills

Add-On Course on Basics of Ornithology

Notice for the Course:



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19.	Value Education	Kakali Sarma	Education
20.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
21.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology
22.	Certificate Course on Disaster Management	Riki Deuri Bharali	Geography
23.	Add on Course on Spoken Sanskrit	Debasis Goswami	Sanskrit
24.	Basics of Ornithology	Dr. Bidyut Kr. Das	Zoology



Proposal for "Add-on Course" Title: BASICS OF ORNITHOLOGY

Department of Zoology

Duration of the course: 30 hours Credit: 02 (Theory + Practical) Course Fee: Rs.400 Course Code: ZOO-AC-03

(Zoology honours) can take this course.
No. of Students: 25 Eligibility: Student pursuing B.Sc. Fourth Semester

Session: 2021-22



Programme/Course overview: Ornithology is the scientific study of birds that concerns the methodological study and consequent knowledge of birds with all that relates to them. Several aspects of ornithology differ from related disciplines, due partly to the high visibility and the aesthetic appeal of birds. Birds are part of the kingdom Animalia, phylum Chordata, and class Aves. They are warm-blooded vertebrates, but they have hollow skeletal structures that make them lightweight, unlike other vertebrates. They are the only group of animals with feathers that serve as insulation and camouflage. Some birds have feathers to help them fly, however, flightless birds such as ostriches and penguins mainly use their feathers for insulation. Aside from the presence of feathers, they are made distinct by their bills - a protruding bony, keratin-covered part in front of their mouth. Birds use their bills for eating, killing prey, carrying, probing for food, carrying, and even as weapons. One of the most distinguishing characteristics of birds is their wings, which are primarily used for flying. Even flightless birds (e.g., penguins, ostriches, and emus) have vestigial wings that they can use for swimming, courtship dances, and threat displays. The size and shape of their wings vary depending on their primary use. Birds are also bipeds, meaning they use their two legs for walking, running, or perching. The wing and leg structure of birds vary depending on the species' lifestyle and primary needs. Lastly, all species of birds lay eggs. After a certain length of incubation, chicks hatch from the eggs and continue to develop

Birds are wonderful ambassadors for nature and for making the case that action is urgent to rebalance our impact on the environment. They have inspired thinkers, artists and writers over the centuries, and are a source of joy and sense of wonder the world over. It is possible to enjoy their presence everywhere, from the roadside verges, parks and gardens of our densely populated cites to the barren rock and scree in the highest mountains. (Richard Grimmett)

Studies on birds have helped develop key concepts in biology including evolution, behaviour and ecology such as the definition of species, the process

of speciation, instinct, learning, ecological niches, guilds, island biogeography, phylogeography and conservation.

Aim of the Course:

This course was created to provide detailed information about the biology of birds to the students, guiding them in study of birds from anywhere at any time. The course delves into many topics in great depth, ranging from evolution and anatomy to behavior and conservation. This course deepens the understanding of birds and helps in master everything from anatomy and behavior to ecology and conservation. Worldwide in scope, the experience will broaden student's bird knowledge and give them strong foundation in all things avian. Laboratories and field projects will focus on identification, systematics, and natural history, with particular attention to species from Assam.

Specific Learning Outcomes: Upon success completion of this course, students will accomplish the following objectives:

- 1. Students will develop their ability to make scientific observations and generate hypotheses about natural phenomena
- 2. Students will be able to identify a wide variety of bird species in the wild.
- 3. Students will be able to use a variety of electronic tools to identify and record
- 4. Students will understand the evolutionary history of birds.
- 5. Students will understand the form and function of birds.
- 6.Students will understand the behavioral and reproductive aspects of bird biology
- 7. Students will understand the ecology and conservation of birds.

- 8. Students will be able to conduct independent research on bird biology
- 9. Students will develop their critical thinking and communications skills
- 10. Students will learn to acquire and assess information on a selected topic, and to communicate this information in a scientifically sound yet publicly assessable
- 11. Students will develop skills to advance ornithological research

How is the Basics of Ornithology course beneficial?

- 1. The individuals are inspired and motivated to join as ornithologist, ecologist, foresters and a lot more in this series.
- 2. They will get to know about how to become a forest range officers or as Zoo curators
- 3. The individuals can also go for education sector for further research work.
- 4. An individual can also become a tourist guide with this certificate course.
- 5. Self sustaining economically by pursuing an important ornithological project.
- 6. Guest relations executive.

Details syllabus of proposed Add-on Course (Basics of ornithology):

Theory (Modules) (25 hours)

Module1: Introduction to Ornithology (3 hours)

Evolution of birds, Importance of birds, Avian diversity and

Module 2: Avian Anatomy and Physiology & Avian Food and foraging (4

Exercise Physiology of flight, Avian Anatomy, Diversity of foods and foraging behaviors

Module 3: Avian Activities (4 hours)

Flying, Aerodynamics, Walking, Eating, Perching, Nesting, Avian vocal Behavior

Module 4: Avian Mating and Breeding Biology (6 hours)

Territoriality, Adaptive value of mate choice, Pair-bonds, courtship and divorce, Timing of breeding, Nest-building behaviors, Incubation and caring for young

Module 5: Avian Migration and Bird Conservation (8 hours)

Patterns and movements in migration, Causes of migration, Orientation and navigation, Significance of migration, Causes of avian population declines, Conservation solutions

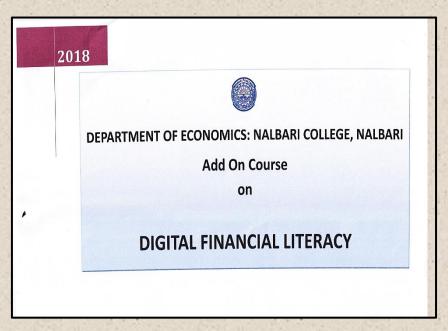
Practicals (5 hours):

- 1. Practical for birds' anatomy through laboratory avian model. (1 hour)
- 2. Field visit for study of bird and their habitats. The trip will be day trip. (3
- 3. Web Surfing of birds. (45 min)

> DEPARTMENT OF ECONOMICS

Add-On Course On Digital Financial Literacy

• Brochure:



Notice for the Course:



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Ref. No.:

Date: 09/01/2018

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1.	Add on Course on Fundamentals of Climatology	Girin Deka	Geography
2.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
3.	Yoga –as a part of life	Anjanjyoti Sarma	Physical education & Sports
4.	Spoken English	Dr. Darshana Goswami	English
5.	Digital Financial Literacy	Dr. Subrata Barman	Economics
6.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
7.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology
8.	Women Empowerment	Pallabi Das	Education
9.	Vedic Mathematics	Gautam Sarma	Mathematics

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(Dr. Dipak Goswami) Principal Nalbari College, Nalbari

Principal Nalbari College, Nalbari Nalbari : Assam





Department of Economics Nalbari College, Nalbari

Established: 1945

ADD-ON COURSE ON
DIGITAL FINANCIAL LITERACY
(ECO-AD-1011)

Course Objectives:

This course aims to provide a thoughtful, practical guide to understand the concept of Digital Financial Literacy- its area, uses, advantages and disadvantages and prospects of Digital Financial Literacy in India.

Course Outcome

The students would be acquainted with the concept of Digital Financial Literacy, areas and uses of Digital Financial System and its advantages and disadvantages.

Course Content:

Unit-I:

Concept of digital literacy, concept of financial literacy, concept of digital financial literacy; types and use of digital tools.

Unit-II:

Components of financial system- Money, Investment, Borrowing, Purchase, Banking, Trading, Insurance, utility services; Evolution of money- Barter system, Animal standard, Matel (gold/ silver) standard, Paper currency, Plastic money, Digital money.

Unit-III:

Advantages and disadvantages of digital finance- Banking, Utility service, Insurance, online trading and other probable areas; Prospects of Digital Finance in India.

Examination after completion of the Course:

For assessment of the course, a written examination and projects would be assigned.

Course Prepared by: Dr. Subrata Barman, HoD & Associate Prof. Dept of Economics, Nalbari College.

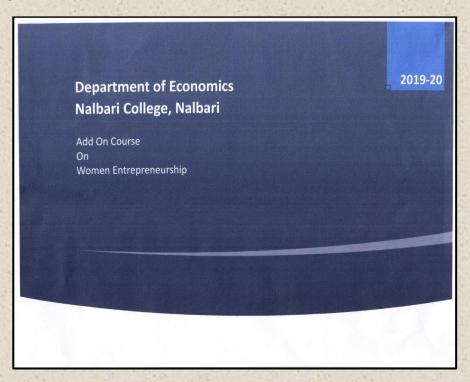
Course Coordinator: : Dr. Subrata Barman, HoD & Associate Prof. Dept of Economics, Nalbari College.



HOD & Associate Professor Department of Economics Nalbari College, Nalbari

Add-On Course on Women Entrepreneurship

• Brochure:



Notice for the Course:



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1.	Basic Astronomy and Sky Observation	Surajit Sarma	Physics
2.	Add On Course on Dharmasastra	Dr. Goutam Choudhury	Sanskrit
3.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
4.	Yoga –as a part of life	Anjanjyoti Sarma	Physical education & Sports
5.	Spoken English	Dr. Darshana Goswami	English
6.	Environmental Awareness (Rising Temperature and Mitigation Measures)	Giren Chandra Deka	Geography
7.	Women Entrepreneurship	Aditi Das	Economics
8.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
9.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology
10.	Travel And Truism Guidance	Pranita Barman	History
11.	Certificate Course on Sustainable Development Goals	Mrs. Binita Devi	Geography
12.	Mathematics in Ancient India	Dr. Mriganka Shekhar Dutta	Mathematics





Syllabus of the Course:



Department of Economics Nalbari College, Nalbari

Established: 1945

ADD-ON COURSE ON WOMEN ENTREPRENEURSHIP (ECO-AD-1012)

This course aims to provide a thoughtful, practical guide to understand the concept of entrepreneurship from the perspective of women. This course covers the entrepreneurial process from idea generation to implementation.

Course Outcome:

The students would be acquainted with the concept of entrepreneurship in general and women entrepreneurship in particular. Students also have an idea about the entrepreneurial process.

Course Content:

Unit-I: Introduction-

Concept, meaning and definition of women entrepreneur and women entrepreneurship. Classification and types of entrepreneurs, functions of women entrepreneurs, evolution of women entrepreneurship in India, role of women in economic development.

Unit-II: Opportunities and challenges faced by Women Entrepreneurs-

Challenges faced by women entrepreneurs, opportunities for an entrepreneurial career, measures to improve women entrepreneurship.

Unit-III: Role of financial institutions in support of women entrepreneurship-

SIDBI, NEDFI, SFC, SHG (objectives and functions)

Unit-IV: Government Schemes and Institutional support to promote Women Entrepreneurship-

TREAD, Annapurna Scheme, Bharatiya Mahila Bank Scheme, Mudra Yojana Scheme, Women Entrepreneurship Platform (WEP), Stree Shakti Yojana

Unit-V: Correlation and regression analysis. Unit-VI: Presentation of project work.

For assessment of the course, a written examination and projects would be assigned.

Course Prepared by: Dr. Aditi Das, Asst Prof., Dept of Economics, Nalbari College.

Course Coordinator: Dr. Aditi Das, Asst Prof., Dept of Economics, Nalbari College.



HOD & Associate Professor Department of Economics Nalbari College, Nalbari

Add-On Course on Application of Computer in Economics

• Notice for the Course:



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Ref. No.:

Date: 08/01/2021

Notice

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SI. No	Title of the Add-on Course	Course Co-Ordinator	Department
1.	Certificate Course on Indian Knowledge System	Dr. Rupasmita Buzarbaruah	Sanskrit
2.	Application of Computer in Social Science	Dr. Bishnu Bhattacharyya	Economics
3.	Fundamental of Electronic and Radio communication	Surajit Sarma	Physics
4.	Translation Studies	Dr. Ranjana Bhattacharyya	English
5.	Learning Some Basic Chemistry Software	Dr. Purabi Sarmah	Chemistry
6.	Human Value and Ethics	Purabi Talukdar	Philosophy
7.	Biofertilizer Preparation	Dr. Gautam Kr. Handique	Botany
8.	Add on Fundamentals of Cartographic Techniques and Remote Sensing	Dr. Darshana Sarma	Geography
9.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
10.	Yoga –as a part of life	Anjan Sarma	Physical Education & Sports
11.	Spoken English	Dr. Darshana Goswami	English
12.	Disaster Management with special reference to Assam (Flood)	Giren Chandra Deka	Geography
13.	Public Speaking as a part of Personality Development	Ananta Rajbongshi	Physics
14.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology



Nalbari College, Nalbari

Syllabus of the Course:



Page No:

Department of Economics Nalbari College, Nalbari

Established: 1945

ADD-ON COURSE ON COMPUTER APPLICATION IN SOCIAL SCIENCE (ECO-AD-1011)

Course Overview: research is an integral part of teaching and learning, which needs analytical decision making. Computer software helps to organize, manage and analyze the collected data through which conclusion can be drawn. In this course the participants would be able to learn the process of organizing data and then to analyze the data by using computer software so that conclusion can be drawn.

Course Objectives:

- Objectives:

 To improve the quantitative skills of the students.

 To learn methods of data management and analysis with the help of computer software.

 To educate learners on sampling process, types of tests and correlation in software.
- To learn analytical and presentation skills for sound decision making.

The students would be acquainted with the collection, organization and analysis of data to draw conclusions on the facts.

Course Content:

Unit-I: Basic concepts of statistics: Data, types of data, Time Series and Cross Section data, collection of data and sample and its types.

Unit-II: Data entry in software; Management and organization of data; Transformation of data.

Unit-III: Analyze through software: Descriptive statistics; Crosstabs; Preparation of graphs etc. Unit-III: Analyze through software: Descriptive statistics; Crosstabs; Preparation of graphs etc. Unit-IV: Esting of hypothesis: Chi-square test, t- test and ANOVA. Unit-V: Correlation and regression analysis.

Unit-VI: Presentation of project work.

nation after completion of the Course:

For assessment of the course, a written examination together with practical examination would be conducted and projects would be assigned.

Course Prepared by: Dr. Bishnu Bhattacharyya, Asst Prof., Dept of Economocs, Nalbari College

Course Co-ordinator: Dr. Bishnu Bhattacharyya, Asst Prof., Dept of Economous, Nalbari College.

> BECHELOR OF PHYSICAL EDUCATION

Add-On Course on Yoga as Part of Life

• Notice for the Course:



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Date:-

This is for the information of all concerned that the thirty hours add-on certificate course in Yoga as part of Life ,to be conducted by the Dept. of Physical Education ,Nalbari College will be held from 14/08/2018 to 20/04/2019. Classes will be conducted in offline mode. Henceforth interested student are requested to contact the course coordinator for the same.

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Nalbari College, Nalbari

Prince of Nalbari College, Nalba Nalbari Assam

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Diganita HO

Dept. of Physical Education

PHYSICAL EDUCATION NALBARI COLLEGE NALBARI



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8.	Women Empowerment	Pallabi Das	Education
9.	Vedic Mathematics	Gautam Sarma	Mathematics

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3.	Fundamental of Electronic and Radio communication	Surajit Sarma	Physics
4.	Translation Studies	Dr. Ranjana Bhattacharyya	English
5.	Learning Some Basic Chemistry Software	Dr. Purabi Sarmah	Chemistry
6.	Human Value and Ethics	Purabi Talukdar	Philosophy
7.	Biofertilizer Preparation	Dr. Gautam Kr. Handique	Botany
8.	Add on Fundamentals of Cartographic Techniques and Remote Sensing	Dr. Darshana Sarma	Geography
9.	Basics of Computer Science	Dhrubajyoti Mishra	Computer Science
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14.	Food Nutrition and Dietetics	Dr. Bidyut Kr. Das	Zoology





Theory:40 marks

Unit 1: Patanjali Yoga Darshana:

- A. Introduction to Yoga Philosophy, Definition of Yoga,
- B. Types of Chittvritti, Kleshas and Chittabhumis

Unit 2: Asthanga Yoga (Eight limbs of Yoga)

- A. Ethical and psycho-physical Dimensions of Yoga:Yama, Niyama, Asana, Pranayama, Pratyahara
- B. Psycho- Spiritual Dimensions of Yoga: Dharana, Dhayana, Samadhi

Unit 3: The Relationship Between Yoga and Sankhya Philosophy

Tattvas & Three gunas

Unit 4: Body Anatomy & Physiology its relation with Yoga, Ayurveda and Naturopathy

A. Introduction to Human Body and systems: In brief with special reference to Respiratory, Digestive, Muscular and Nervous systems

Endocrinal system: Nature of B.M.L. Blood pressure. F

Endocrinal system:, Nature of B.M.I., Blood pressure, Fatigue, Immunity, Sugar level, Cholesterol, Fat, Urea their significance and related tests.

- B. Yoga and Ayurvedic: Its relationship, similarities, and differences, Ayurvedic concept of Yoga. Ayurveda concept of Tridoshas, Dhatus and Malas. Yogic Impact on their healthy nature.
- C. Yoga and Naturopathy:

Its relationship, similarities and differences, Naturopathic concept of foreign matter, unnatural living style and Yoga impact on it.

Practical:40 marks

1 Surya Nasmaskar

2 Asana-

Uttanpadasan, Halasan, Pawanmuktasan, Makrasan, Bhujangasan, padahastasana,

Shaslabhasan, Dhanurasan, Ardha-Mastsyendrasan, Janushirasan, Supta-Vajrasan,

Chakrasan, Trikonasana, Sasakasana, Shalvasana, Vrikshasana, Tadasa, Uktatasan, Padamsan, Uthi

tta-Padmadasana, Gomukhasan, Vajrasan, Pashchimottasan, Sarvangasan,

Matsyasan, Sirshasana, Savasana

3 Pranayam

Nadi-Shodhan, Surya, Bhedi Ujjayi, Shitkari, Sheetali, Bhastrika, Bhramari.

4 Shat-Karma(Cleansing process)

Jal-Neti, Sutra Neti, Kunjal, Trataka, Kapalbhati

5 Mudra

Mahamudra, Mahabandha, Viparitkarani, Shambhri, Kaki

6 Bandh

Jalandhar-Bandh, Mool Bandh, Uiddiyan-Bhandh

7 Dhyan (Meditation):

"OM"recitation

8. Practical work

Assignment: 20 marks

References:

(Name of the Author & Name of the Books)

- 1.Dr. Bhardwaj Ishwar Upnishdhik & Adhyatmik Yigyan
- 2. Gupta S.N. Dass Yoga Philosophy
- 3.Gupta,S.N. Das. **Yoga Philosophy in Relation to other system of Indian Thought**, New Delhi, Moti Lal
- 4.Banarsi Dass. Chinmayananda, Swami.. **The Holy Geeta.** Mumbai, Central Chinmaya Mission

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- 5. Hiriyanna, M.,. **The Essentials of Indian Philosophy**. New Delhi, Motilal Banarasi das Publishers.
- 6. Iyengar, B.K.S. (2008). Light on Yoga. New Delhi, Harper Collins.
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- 9. Mukherjee , Wishvananth Bharat Ke Mahaan Yogies
- 10.Panda, N.C. Mind & Super Mind compbell, Anthony
- 11. Swami Tirth, Omanand Patanjali Yog Pradeep
- 12.Swami Kuvalayananda Hathyog Preedipika
- 13. Sharma Chandradhar A Critical Survey of Indian Philosophy. Delhi,

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14. Vivekananda, Swami Complete Book of Yoga. Delhi, Vijay Goel Publisher