

Program Brochures for Value Added Programs

Department of Economics

College of Commerce, Arts & Science, Patna

Certificate Programme on

Fundamentals of Environmental Economics

Course Name: Fundamentals of Environmental Economics

Course Co-Ordinator: Dr Baikunth Roy

Assistant Professor, Department of Economics

College of Commerce, Arts & Science, Patna


Eligibility & Schedule of the Course

Potential Participants:	10+2 or its equivalent
Duration:	Three Months (12 weeks) Three classes per week tentatively
Number of Hours:	36 Hours
Mode of Learning:	Hybrid Mode (Online+Offline)
No of Students:	120

Medium of Instruction of the Course: English & Hindi

Broad Outline of the Program

- Economics and environment
- Welfare and markets
- Environmental protection
- Environmental regulations


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- Environmental market behaviour

Aim of the Program

Explore the critical intersection of economics and environmental sustainability with our Environmental Economics Course in the Hybrid Mode. This comprehensive program equips you with the knowledge and tools to analyze environmental issues from an economic perspective, empowering you to contribute to a more sustainable and ecologically responsible future. In this engaging online course, you will delve into the principles, theories, and practical applications of environmental economics, addressing complex challenges facing our planet.

Expected Course Outcomes:


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

1. Discuss the environmental issues in relation to the theory of externalities, public goods, and welfare.
2. Illustrate and examine economic principles concerning the choice of instruments for controlling pollution and the relative strength and weaknesses of environmental policies based on command-and-control vis-à-vis market-based instruments.
3. Discuss various approaches and methods developed for valuing environmental goods and services.
4. Examine issues in the contemporary environmental discourse from an economists' point of view.

Course Layout

Week – 1

1. Fundamental concept of environmental economics
2. Meaning and subject matter of environmental economics
3. Nature and scope of environmental economics


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4.Key environmental issues and problems

Week – 2

5.Market failure and externalities

6.Pigouvian taxes and subsidies

7.Pareto efficiency / optimality

8.Property rights and Coase theorem

Week – 3

9. WTO and Environmental issues

10.Environmental Kuznets- Hypothesis

11.Approaches to the allocation of public goods and Tradable permits

12.Environmental quality: AIR, WATER, FOREST, LAND

Week – 4

13.non-market values and measurement methods

14.Sustainable policy approach to check environmental degradation


15.Cost benefit analysis of environmental regulations

Week – 5

16.Economics of Recycling and waste management

17.Sustainable development rules and principles

18.Green marketing and clean technology


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Week – 6

- 19. Poverty and environment
- 20. Land degradation and environment
- 21. Bio-Diversity conservation and environment

Week – 7

- 22. Integrated environmental and economic accounting
- 23. Role of information in the health of the Environment
- 24. Policy instruments for environmental protection

Week – 8


- 25. Environmental laws in India
- 26. Economic approach and ecological approach
- 27. India's Environmental Policy and Legislation

Week – 9

- 28. International environmental policy
- 29. Environmental Risk Analysis
- 30. Environmental pollution and policies

Week – 10

- 31. Air pollution and climate change
- 32. Pollution of water resources and their management
- 33. Deforestation and extinct of bio-diversity


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34. Economics of climate change

Week – 11

35. Inter linkages between environment and e-governance

36. Waste (e- waste) management and environmental issues

Week – 12

37. Population, human health, and environment linkages

38. Agro-Economics and Environmental Science

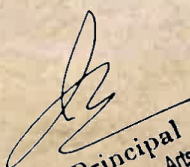
Assessment Details

The students have to mandatorily maintain 75% attendance. After that, they will be allowed to sit in the final examination. The examination will carry 100 marks. It will be a 3 hours exam. The examination paper will consist of both objective and subjective questions.


The end-semester examination would examine the students for their understanding of methods and approaches taught and their application to the range of environmental issues. The underlying emphasis would be on developing the attitude of independent thinking on contemporary environmental issues and critical evaluation of public policy for addressing environmental problems.

Books and references

1. J.P. Sharma, 2011. Environmental Studies. University Science Press.
2. P.D. Sharma, 2009. Ecology and Environment. Rastogi Publications.
3. Masters, Gilbert M, 2008. Introduction to Environmental Engineering and Science. PHI publication.


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4. Asthana D. K., Meera Asthana, 2019. A Textbook of Environmental Studies. S Chand & Co Ltd.
5. Shashi Motilal, Bijayalaxmi Nanda, 2006. Human Rights, Gender, and Environment Allied Publishers
6. Rajagopalan R, 2015. Environmental Studies. OUP India


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Department of Economics
College of Commerce, Arts & Science, Patna

Three- Months Certificate Programme

Students will get a chance to pursue value added course along with the subjects that they have opted for with an objective to increase their learning output.

Course Name: Applied Financial Literacy & Banking

Course Co-Ordinator: Dr Baikunth Roy

Assistant Professor
Department of Economics, College of Commerce, Arts & Science, Patna-20

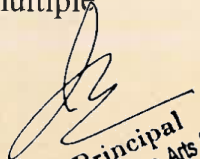
Eligibility & Schedule of the Course

Potential Participants:	10+2 or its equivalent
Duration:	Three Months (12 weeks) Three classes per week tentatively
Number of Hours:	36 Hours
Mode of Learning: Hybrid:	(Online+Offline)
No of Students:	120

Medium of Instruction of the Course: English & Hindi

Vision: To educate and empower students with financial knowledge and resources, so they can ultimately apply this knowledge to their lives, have financial security and attain financial wellness.

Mission: To provide a holistic financial literacy curriculum offered at multiple touchpoints throughout a student's educational journey.


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Learning Objectives:

The Learning Objectives of this course are as follows:

- Familiarity with different aspects of financial literacy such as savings, investment, taxation, and insurance
- Understand the relevance and process of financial planning
- Promote financial well-being

Expected Learning outcomes:

The Learning Outcomes of this course are as follows:

- Develop proficiency for personal and family financial planning
- Apply the concept of investment planning
- Ability to analyse banking and insurance products
- Personal tax planning

Thus, It will make a more responsible individual with a disciplined approach to money and helps people from overspending and inculcates a habit of savings and investments. In short, Students will demonstrate knowledge of money management within three main areas: responsible borrowing, budgeting, and credit.

SYLLABUS OF FINANCIAL LITERACY

Unit: I- Basics of Savings and Investment: Why are investing and savings important? Savings Vs Investment, Power of Compounding, What should be the investment objectives? Risk and Return, Inflation effects on Investment, Investor's Age and Assets Allocation.

Unit: II- Banking Activities: Deposits and Types of Deposits-Saving Bank Accounts, Fixed Deposit Accounts, Recurring Deposit Account, Special Term Deposit Schemes, Loans and Types of loan advanced by Banks and other secondary functions of Bank. Banking structure in India and Role of Reserve Bank of India.

Unit: III- Financial Markets: Capital Market Vs Money Market, Securities and its types, i.e., Equity, Debentures or Bonds, IPOs and FPOs, Mutual Funds, Types of Mutual Funds, Brokers, sub-brokers, Process for becoming a capital market investor.


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Unit: IV- Protection Related products: Insurance Policies, Life Insurance, Term Life Insurance, Endowment Policies, Pension Policies, ULIP, Health Insurance and its Plans, Understanding of Ponzi Schemes.

Unit: V- Tax Saving Schemes: Government Schemes- National Saving Certificates, Public Provident Fund, Post Office Schemes, Equity Linked Savings Schemes, Retirement Benefits Schemes- NPS (New Pension System).

Note: Some of the theoretical concepts would be dealt with during practice hours.

Assessment Details

The students have to mandatorily maintain 75% attendance. After that, they will be allowed to sit in the final examination. The examination will carry 100 marks. It will be a 3 hours exam. The examination paper will consist of both objective and subjective questions.

Essential/Recommended readings

Introduction to Financial Planning (4th Edition 2017)- Indian Institute of Banking & Finance.

Indian financial System, by T. R. Jain and R. L .Sharma, VK Global Publisher.

Money and Banking by T. R. Jain and R. K. Kaundal, VK Global Publisher


Investment Planning by SEBI.

Suggested Readings

• Halan, Monika, Let's Talk Money: You've Worked Hard for It, Now Make It Work for You, July 2018 Harper Business.

• Pandit, Amar The Only Financial Planning Book that You Will Ever Need, Network 18 Publications Ltd.

Sinha, Madhu. Financial Planning: A Ready Reckoner July 2017, McGraw Hill.


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**College of Commerce, Arts & Science, Patna
(Patliputra University)**

**Internal Quality Assurance Cell
Organizing a Certificate Course in**

“Stress Management”

Patron

**Prof. Tapan Kumar Shandilya
Principal**

IQAC Co-ordinator

**Dr. Santosh Kumar
Associate Professor**

Course Co-ordinator

**Dr. Ravi Ranjan
Assistant Professor**


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Course Description:

Stress is a fact of life, wherever people are and whatever they are doing. It cannot be avoided, but one can learn to manage it. This course is designed to expose students to a holistic approach regarding stress management. It will help them to learn to reduce the negative impacts caused by stress and to improve their physical and mental well-being. The students will learn Physical, behavioural, cognitive, affective and spiritual (coping) skills, and a host of relaxation techniques with the intention to prevent and alleviate the physical and psychological symptoms of stress. This course will provide both theoretical and experiential learning.

Duration:

30- hour course over 3 weeks (2 hour each session, five times a week).

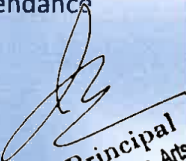
Objectives:

- To understand the nature of stress.
- To be able to recognize sources of stress.
- To recognise the stressors, adaptive and maladaptive behaviour.
- To understand the impact of stress on health and performance.
- To provide different techniques of stress management.
- To explain the importance of physical exercise in combating the effects of stress.
- To prepare for better mental and physical health.

Course outcomes:

- Understanding the nature, causes and sources of stress.
- Managing better physical and mental health.
- Learn managing optimal performance.
- Learn Managing Work-Life Balance.
- Better relationship with family and friends.
- Learning self- care through lifestyle changes.
- Acquiring life skills and preparing for better future by reducing the stress.

Certification: Upon successful completion of this course with 80% of attendance participants will be issued with a certificate.


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Course Content:

Module 1: Stress in life: Meaning and nature of stress, Difference between eustress and distress.

Module 2: Understanding stressors: Sources of stress across the lifespan, Cognitive appraisal of stress; General adaptation to stress, Adaptive and maladaptive behaviour.

Module 3: Stress and Physical Health: Stress and cardiovascular disease, Stress and cancer, Stress and high blood pressure, Stress and the immune system, Stress and asthma, Stress and gastrointestinal disorders.

Module 4: Stress and Performance: Stress and Cognitive Variables, Common stressors at work place, Stressors unique to age and gender.

Module 5: Stress and Adolescence: Psychosocial problems, Major stressors; Reaction to Stressors: Depression, Aggression, Suicidal behaviour, and Drug abuse.

Module 6: Strategies of Stress Management: Prevention of stress: Challenging Stressful Thinking, Coping: Concept, Process, Types of coping styles, Factors affecting coping, Management techniques: Physical, cognitive, affective, behavioural and spiritual.

Module 7: Other strategies: Self-care: Nutrition and Other lifestyle changes (Stress reduction practices: Time management, Exercise, Relaxation techniques, Yoga, Meditation).

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Certificate Course
on
"Application of Geographical Information Systems"

About the course:

Geographic information system is one the major component of Geo-spatial technologies. Spatial data are becoming crucial and being part of everyday life, GIS help to collect, manage, analyse and produce output from spatial data in an efficient way. Today, GIS technology is not limited to mapping as before, and used in various fields for visualisation, spatial analysis, machine learning (including artificial intelligence), and decision making. "People looking to make career in Remote Sensing industry can foresee big growth across Agriculture, Insurance, Disaster Management, Urban Management, Energy and many other sectors; but at the same time, you need to be more technical and solution driven". The workshop is designed for students with no prior knowledge and will offer essential and practical understanding and linkages of Remote sensing and GIS concepts, tools and real applications.

Highlights of the Course:

- Overview on Remote sensing and GIS
- Available data source, data formats and data download
- Maps concepts and Map projections- coordinate system and projection system
- Handling Vector and Raster Data in QGIS platform
- Creating thematic map from satellite image: Image Digitization and error handling

Course Coordinator

Dr. Vidya Yadav
Assistant Professor
Dept. of Geography,
College of Commerce, Arts & Science, Patna-20

Resource Person


Miss. Ananya Kumari
Senior Executive
Scanpoint Geomatics Ltd.

**For registration: Visit College of
Commerce, Arts & Science website**

Time: 04:00 P.M. to 6:30 P.M

Certificate and Handouts will be provided to the participants

Links for the session will be shared over email


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DAYWISE DETAIL PROGRAMME (35 Hours Course Module) (Hybrid Mode)

Units	Topics		
Unit 1	An Introduction to Remote Sensing & GIS	How to install QGIS and its Plugins 3. Components of GIS system 4. GIS capabilities and function 5. Spatial data Infrastructure	Vector Geometrics, Vector Information, Raster Basics, Data attribute table
Unit 2	Introduction to Map making	Geo-referencing of the given Map in QGIS, Geo-referencing (image to image) Raster to vector advance vector creation	Basic concept of coordinate system, projection, GPS System (Practical practice session)
Unit 3	Sources of data input; Generation of Geo-data bases; Data base management system; Spatial topology	Data attachment Use of excel sheet and CSV file join fields & Create Thematic maps-I	Pie diagram, Histogram Dot Distribution Map Graduated Symbol Map
Unit 4	Spatial Analysis: Understanding where things are or where events occur., Measuring sizes, shapes, and distributions of things or measurements., Analysing relationships and interactions between places., Optimizing locations for facilities, or routes for transportation	Integration of raster and vector data, Spatial join, Table join, Spatial query	Practical practice session
Unit 5	Join fields & Create Thematic maps-II	Choropleth Map Density mapping	Query building in QGIS
Unit 6	Visual Image Interpretation	Image Processing in QGIS	DEMs and their application (Hands-on)
Unit 7	Practice on shapefiles and attribute table	Hands on Practice	Valedictory Session
The END			


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(A constituent Unit of Patliputra University, Patna)

NAAC Re- Accredited With Grade- A CGPA of 3.10/4

General Types of Research Methodology

1 Quantitative Research

2 Qualitative Research



Online Research Methodology Course

First Batch 15th to 29th November, 2022

Second Batch 15th to 29th May, 2023

Time: 4:00 to 06:00 P.M.

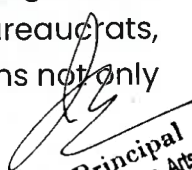
Call for Registration & Participation


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About the College

College of Commerce, Arts & science, Patna, established in 1949, recognized under Sections 2 (f) and 12 (B) of the UGC Act 1956 is a premier constituent College of Patliputra University. College was established by great visionary Late Pt. Indu Shekhar Jha on the advice of Dr. Rajendra Prasad with a pious motive to make quality education accessible for aspiring youths without any discrimination based on socio-cultural-economic grounds. The vision of its great founder Pt. Indushekhar Jha was to make the commerce education accessible to the underprivileged and subaltern students of Bihar, which was rarely available. This revered institution started its journey from a small campus where P. N. Anglo School is located now to its present campus. Flowing in the incessant flow of imparting knowledge and being exposed to the warmth of time, this institution went on incorporating many streams in itself and today in this college education is imparted in the faculties of Sciences, Social Sciences, Commerce, Humanities and Law up to postgraduate levels. It is one of the oldest academic institutions located in the heart of the capital of Bihar, Patna. The College is situated in the exclusive neighbourhood of Rajendra Nagar Railway Terminal and inhabits a 5.89-acre plot campus. The lush green landscape invites an aesthetic charmer and enhances the College atmosphere to an educational eden.

Initially, it was a constituent unit of Magadh University in the name of College of Commerce and was renamed as College of Commerce, Arts & Science in 2016. Later, it became a constituent unit of the Patliputra University, Patna when this university was formed by the Bihar Government on 18 July 2018 after being bifurcated from Magadh University, Bodh Gaya. The College was re-accredited by NAAC as Grade 'A' in its second cycle of accreditation with a CGPA of 3.10 on a four-point scale. After the journey of more than seven decades this institution has achieved its mission and vision to a greater extent for which it was established and it is a matter of great satisfaction that today this institution is acclaimed throughout the state of Bihar for its high academic standards. The College has consistently demonstrated outstanding performance in academics, sports, and Co/extra-curricular activities. It has made significant and unparalleled contributions in terms of producing scholars, bureaucrats, intellectuals, politicians and sportsperson serving in different domains not only


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in our own country but even at international levels. Vibrant and effective presence of our alumni all over the world at key positions in almost all spheres of life is a testimony of its successful journey.

College of Commerce, Arts and Science is opportune to have a galaxy of faculties who command a rare distinction in academic excellence at least in Bihar and whose accomplishments in academia is appreciated universally. The college dare claims to set new yardsticks in Bihar as far as quality research and teaching is concerned. Despite certain limitations which are beyond the college domain like space constraints, proper playground, etc., our students have excelled in various sports streams at different levels. No matter whether it is NCC or NSS or any other wing, this college has proven its worth.

This college has excellent infrastructure with automated central library linked to world-wide free information flows and databases, well equipped laboratories and congenial and natural campus ambience and classrooms. However, the volume of publication in peer reviewed journals with high impact factor and citation index is moderate but the quality of research is worth citing. College administration is trying its best to catch it soon and increase the volume of research too. Teaching and research in all faculties of Sciences, Social Sciences, Humanities, Commerce and Law are available up to PG level. Ph. D. Programmes are also available in most subjects. The college offers 13 postgraduate, 17 undergraduate, 07 vocational, 03 Add-on (with certificate, diploma and advance diploma) and 04 professional/self-financed courses. The college aspires to commensurate to the national and global standards in teaching as well as in research.

Our institution visions to develop an educational set up to bring out a transformative change in the society by nurturing high moral and spiritual values in students, giving quality education in multiple disciplines, empowering the society through knowledge and quality research and fostering creativity and entrepreneurship in students and in this way making students a capable global citizen.

All the stakeholders are working hard with full commitment with a mission to develop and maintain a human repository of knowledge, disseminating it



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among the students and creating new and relevant insights in diverse disciplines through state-of-the-art research. The college retains inspiring facets of its proud history and with an equally sharp gaze, it looks ahead to assimilate the exciting world of new knowledge as they go on unfolding. Our esteemed institution aims to inculcate positive human values in its students and making them capable global citizens, sensitive to human and environmental issues and at the same time quality professionals in their respective fields.



Concept Note:

This course designed to be practical. The theoretical knowledge that constitutes research methodology is therefore organised around the operational steps that form this research process for both Quantitative and Qualitative research. The key concepts of **Research Methodology** such as *Research Problem, Research Design, Sampling Techniques, Research Proposal, Data Collection, Data Analysis, and Research Report*. This course aims to explain the concepts within shortest time possible whilst keeping it really SIMPLE.


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This course will primarily benefit 3 groups:

Students: Who are newcomers to academic research and have therefore assumed students of NOT having any prior knowledge.

Professionals: Gain significant knowledge on concepts of market research or journal writing.

Academic Supervisor: Use this course to teach students about key research concepts and of course, research enthusiast are welcome, too.

Who this course is for:

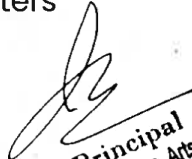
- College/University students
- Academic researchers
- Faculty members

Thematics: (30 Hours Course Module) (Time: 04:00 to 06:00 P.M.)

1. Introduction to Research: Research Philosophy & Types
2. Research Design and Types
3. Data collection and Data Visualization
4. Analysis of Data and Techniques
5. Systematic Literature Review and Meta Data Analysis
6. Introduction to different Qualitative Research Methods
7. Developing an understanding about Qualitative and Quantitative Data Analysis
8. Writing Research Report and Research Papers using LaTeX
9. Advanced Searching Tools and Referencing Tools
10. Scientific Journal Finder
11. Indexing and Impact Factors
12. Publication Ethics: Patent, Copyright and Plagiarism

Objective of the Course:

- Understand the basic concepts of research and its methodologies
- Identify appropriate research topics
- Select and define appropriate research problem and parameters


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- Will able to give research legitimacy and provides scientifically sound findings.
- Enable students to prepare report writing and framing research proposals.

Expected Learning Outcomes

After successful completion of the online course, the participants will able to:

1. Gain better understanding on how to identify a research problem and design a valid research project to answer specific research questions
2. Get hands-on training in the usage of several opensource tools that can assist them in their research endeavours.
3. Write effective research papers and thesis in the journal designated formats using online tools.
4. Know the process of finding good quality journals for research and publishing

Registration Details

Eligibility

Research scholars and postgraduate students are eligible to apply for this programme. All those who meet the eligibility criterion are required to register by visiting <https://www.cocaspatna.ac.in>

Registration: Compulsory registration is required to participate in the course.

After successful registration, the participants will receive a confirmation via email. Please keep checking the spam folder of the email as the bulk email sent may end up in the spam folder. An official group has been made for communication with the participants on "Telegram." You are therefore requested to install the Telegram App either from the Play Store or App Store. The link to join the official group will be provided in the confirmation mail.


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Important:

Attempting and submitting all the quizzes and assignments is mandatory, and each participant should score at least 50% aggregate to be eligible for the completion certificate. Registration is mandatory for participation. Graded certificates on the basis of performance will be awarded to the participants.

For Further Communication, Write to us at:

Vidyayadav1821@gmail.com

ORGANISING BOARD OF THE COURSE

PATRON

Prof. Indrajit Prasad Roy

PROGRAMME COORDINATOR

Dr. Rashmi Ranjana, Assistant Professor, Department of Geography

Ranjana
DR. RASHMI RANJANA
HEAD
P.G. DEPT. OF GEOGRAPHY
COLLEGE OF COMMERCE, ARTS & SCIENCE, PATNA

ORGANIZING COMMITTEE MEMBERS

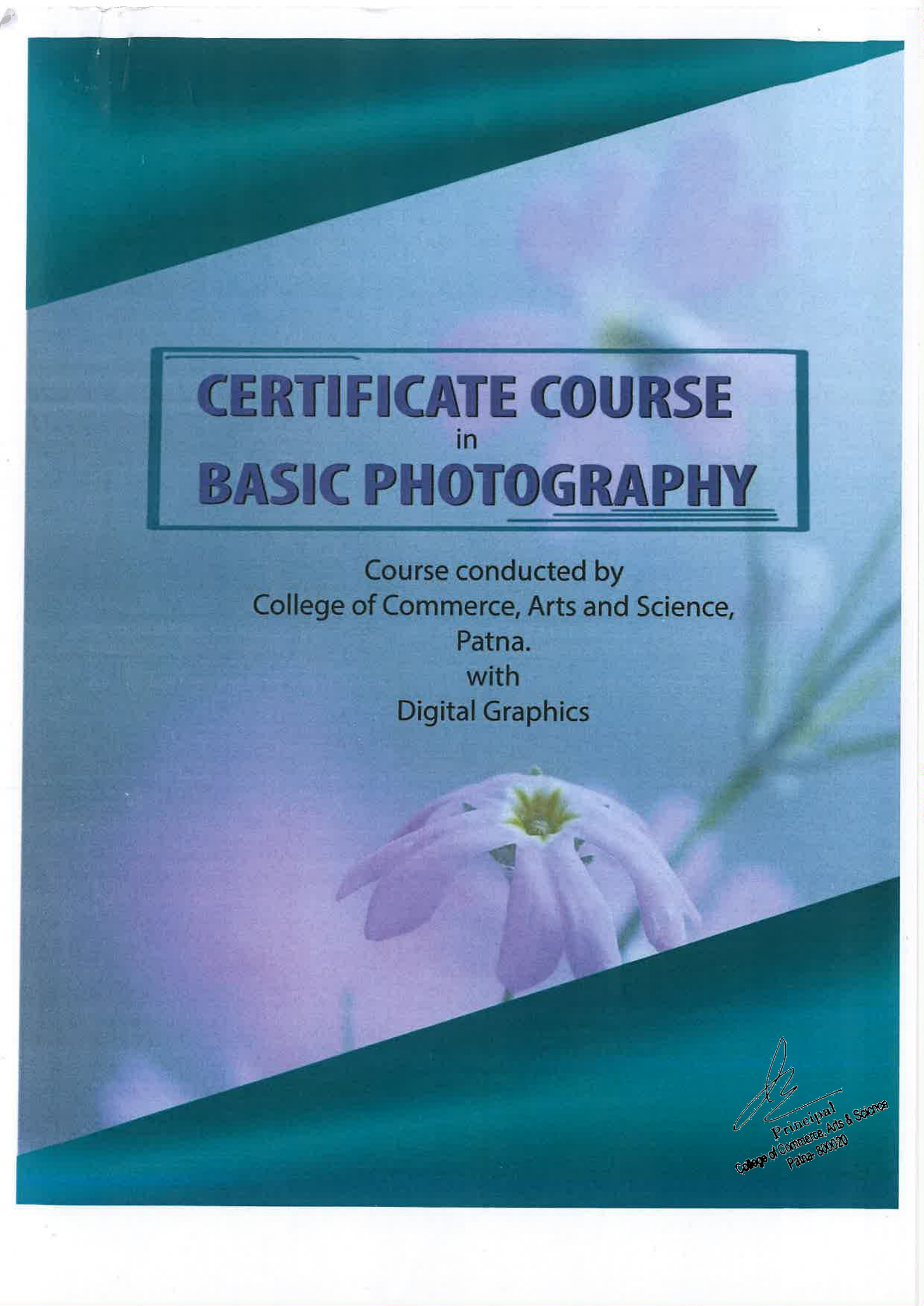
Dr. Vidya Yadav, Assistant Professor, Department of Geography

Dr. Santwana Rani, Associate Professor, Department of Botany

Dr. Mridula Kumari, Associate Professor, Department of Economics

Dr. Baikunth Roy, Assistant Professor, Department of Economics

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CERTIFICATE COURSE in **BASIC PHOTOGRAPHY**

Course conducted by
College of Commerce, Arts and Science,
Patna.
with
Digital Graphics


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Objective

The objective of the Certificate course in Basic Photography is to develop and nurture the basic understanding of Photography among the students. This course will provide an in depth understanding of the various factors that can affect the quality of images and also about the challenges that are likely to come up while clicking the most impressive pictures. Students will be exposed to different kinds of photography practices such as Photojournalism, Product, Sports, Wedding, Industrial, Documentary and Mobile photography.

Mentor

Mr. Suman Mukherjee,
Professional Photographer
M.A (History), Dip. in Photography
RKV, University of Calcutta,
Life Member- FIP,
Owner- Digital Graphic




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Course Structure

Sl. No	Course Content	Duration
1.	Introduction to Image Making- Stops, Film Speed, Shutter Speed, Aperture, Av & Tv Together, Lighting, Camera Shooting Modes, Composition, Lenses, Depth of Field, The Rule of Thirds, Framing, Fill the Frame, Landscapes.	4 hours
2.	Basics of Digital Photography- Introduction, Understanding the terminology used for the digital camera, Acquiring basic knowledge of taking a picture with the digital camera, using different methods in accordance with various situations, Basic knowledge of taking a picture with digital cameras, Terminology used for digital cameras, Equipment you will need, Prerequisite Knowledge or skills	8 hours
3.	Basic Lighting and Flash techniques- Styles of Lighting, Broad Lighting, Short Lighting, Narrow lighting, Butterfly Lighting, Rembrandt Lighting, Three-point lighting, Key light, Tungsten lights, What is Light, Light Examples	4 hours
4.	Writing for Photography- Photography, History, Macro-photography is the form of photography, How to take good photographs, Review of important settings, Taking photos at night, Taking close-up photos.	4 hours
5.	Studio Portraiture- Portraiture, Lesson Objectives, Introduction Discussion, Image Based Discussion, Activities/Projects, The Editing Stage, The Outsourcing Stage, The Capturing Stage	4 hours
6.	Commercial Photography- Making Great Pictures, Special Photographs, Seeing Well, Behind the Lens, Camera Equipment—What You Need, Basic Camera Controls, Lenses and Focal Length, Behind the Lens, Special-Purpose Lenses, Shutter Speeds, Panned-Action Images. (Practical Session will be done as per requirement)	8 hours


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Learning Outcomes

Upon successful completion of the program, students will be able to:

Create artistic photo with their acquired knowledge.

Knowledge of Composition, Light sense, quality enhancement will be grown within them.

Select and use photographic equipment and technologies appropriate to the task.

Demonstrate effective use of written, verbal, and non-verbal communication, employing relevant knowledge, skills, and judgment in a business setting.

Work as a professional photographer in different event, companies, organizations etc.

Use and adapt to a variety of computer software and hardware for both photographic and business purposes.

For Admission

Call - 8372098447 or E-mail - ayanmukherjee88@gmail.com

Classes Details

Practical Classes with mobile camera

Classes of these courses shall be on weekend days.

Timing : 08.00 AM to 10.00 AM

Course Co-ordinator

Dr. Ayan Mukherjee

Assistant Professor, Dept. of Physics,
College of Commerce, Arts and Science, Patna.

Ayan Mukherjee
Dr. Ayan Mukherjee
Assistant Professor
Department of Physics
College of Commerce, Arts & Science, Patna



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PATNA-20

(A Constituent Unit of Patliputra University, Patna)



Certificate Course in Renewable Energy



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About College

College of Commerce, Arts & science, Patna, established in 1949, recognized under Sections 2 (f) and 12 (B) of the UGC Act 1956 is a premier constituent College of Patliputra University. College was established by great visionary Late Pt. Indu Shekhar Jha on the advice of Dr. Rajendra Prasad with a pious motive to make quality education accessible for aspiring youths without any discrimination based on socio-cultural-economic grounds. The vision of its great founder Pt. Indushekhar Jha was to make the commerce education accessible to the underprivileged and subaltern students of Bihar, which was rarely available. This revered institution started its journey from a small campus where P. N. Anglo School is located now to its present campus. Flowing in the incessant flow of imparting knowledge and being exposed to the warmth of time, this institution went on incorporating many streams in itself and today in this college education is imparted in the faculties of Sciences, Social Sciences, Commerce, Humanities and Law up to postgraduate levels. It is one of the oldest academic institutions located in the heart of the capital of Bihar, Patna. The College is situated in the exclusive neighborhood of Rajendra Nagar Railway Terminal and inhabits a 5.89-acre plot campus. The lush green landscape invites an aesthetic charmer and enhances the College atmosphere to an educational eden.

About the Course

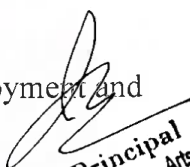
This course aims is a better understanding and practical exposure in the various areas of RE sector viz. solar, wind, small hydro including grid integration, power distribution, energy storage system etc. The participants will be groomed as per the requirements of the RE sector including power distribution, Energy Storage system and after completion of the course the candidate will have job opportunities & can also work as a consultant/entrepreneur.

Course Objectives

1. To provide theoretical and practical understanding of Renewable Energy.
2. To provide knowledge on various schemes undertaken by government for skill based green jobs as a career option.
3. To encourage entrepreneurship

Course Outcome

1. A student will have knowledge about the emerging area of renewable energy systems.
2. A student will have knowledge about the Energy Storage systems
3. A student will have knowledge about Energy Management
4. A student will be able to consider renewable energy as a means of self-employment and source of income.


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Mode of Learning

Hybrid

Online: Google Meet

Offline Class Room: Physics Department Smart Lecture Hall

Schedule of Course

Two batches in every academic session

1st August to 30th November & 15th January to 15th May

Total Week: - 16 Weeks (40 Hours)

How can you apply for this course ?

All candidates are advised to contact course coordinator for admission. Only first-come-first-serve basis is allowed for application. Any students from our college already enrolled under any course can apply for this course.

Syllabus

Module 1: Introduction to Renewable Energy

Overview of renewable energy sources

Importance of renewable energy in addressing climate change

Global renewable energy trends and policies

Module 2: Solar Energy

Solar photovoltaic (PV) technology

Solar thermal systems

Solar energy applications in residential, commercial, and industrial sectors

Module 3: Wind Energy

Wind turbine technology and components


Wind energy resource assessment

Wind energy integration and grid connection

Module 4: Hydropower

Types of hydropower systems

Small-scale and large-scale hydropower


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Module 5: Biomass Energy

Biomass feedstocks and conversion technologies
Bioenergy applications in heat, electricity, and transportation
Sustainability and environmental impacts of biomass energy

Module 6: Geothermal Energy

Geothermal heat pumps
Geothermal power generation
Geothermal applications in heating and cooling

Module 7: Energy Storage

Importance of energy storage in renewable energy systems
Battery technologies (e.g., lithium-ion, flow batteries)
Thermal and mechanical energy storage

Module 8: Grid Integration and Energy Management

Challenges and solutions for integrating renewable energy into the grid
Smart grid technologies
Energy management systems and demand-side management

Module 9: Renewable Energy Policies and Economics

Renewable energy incentives and subsidies
Economics of renewable energy projects
Case studies of successful renewable energy initiatives

Module 10: Future Trends and Innovations

Emerging technologies in renewable energy
Microgrids and decentralized energy systems
Ethical and sustainability considerations in renewable energy


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Assessment:


Quizzes and assignments

Class participation

Group project on a renewable energy system design or feasibility study

Why you should Join the Course ?

In September 2019, Hon'ble Prime Minister Shri Narendra Modi, announced long-term ambitious RE targets of 450 GW by 2030 moving beyond the target of 175 GW by 2022. Aligning with the goals of Central Government, India's RE rich States are expanding the RE capacity and generation which definitely require these RE rich States to develop a holistic understanding of full range of flexibility options for RE integrations.


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College of Commerce, Arts & Science, Patna

Certificate Course in Communicative English

Objectives

- To develop communicative competence in the students
- To expose the students to the employment opportunities challenges and job roles
- To develop and integrate the use of four language skills i.e. listening, speaking, reading and writing
- To encourage students to use English in their day-to-day life

Learning outcomes

After completion of the course the student should be able to:

- Express ideas in clear and grammatically correct English without hesitation
- Develop their personality.
- Acquire confidence to speak fluently and write correctly in formal and informal situations.

Course Module:

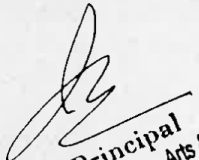
Unit 1 (10 Hrs)

- **Communication**
 - definition and major types of communication
 - process of communication
 - characteristics of effective communication
 - barriers of communication

Unit 2 (15 Hrs)

- **Grammar and its usage**
 - sentence structure
 - subject verb agreement
 - time and tense
 - articles
 - Prepositions

Unit 3 (15 Hrs)


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- **Reading and Writing Competence**

- Reading Comprehension: Identifying main ideas drawing inferences& summarizing
- Precis Writing
- Application and letter writing
- Formal email
- Resume /C.V

Suggested readings

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For Admission Details Contact:


Prof. (Dr.) Saloni Prasad (Mrs. Kumar)
Course Co-ordinator
Professor, Dept of English
College of Commerce, Arts & Science, Patna-20


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**IQAC of College of Commerce, Arts
and Science, Patna
*Organizes German Language
Programme (Online Mode)***

Timing- 09:00 AM to 10:00 AM

*Register yourself with the given link:
<https://www.cocaspatna.ac.in/>*

Contact Person:

Dr. Akanksha Priya
Assistant Professor
Department of Botany
COCAS, Patna


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Learn German Language for Beginners

A1
Course

TRAINING OVERVIEW

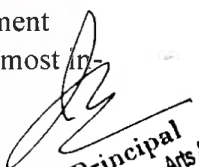
- German language Training (Online mode) gives you the opportunity to sharpen your language skills. The focus is on widening and consolidating vocabulary as well as developing and practicing listening and reading skills. Writing skills are practiced using fill-in-the-blanks exercises. Speaking skills are not a focus of this training.
- German Training Online is divided into chapters, which tackles different everyday situations and current topics. The necessary grammatical knowledge and relevant vocabulary is provided in each chapter.
- Should you encounter any difficulties or have questions, helpful answers can be found in clear, understandable info boxes.
- Important overviews of different topics are available as printable downloads as a useful supplement for your personal files.
- You learn and are able to practice your language skills using many different types of exercises; for example, using pictures, audios and videos as well as reading and fill-in-the-blanks texts. Access with Abundant Tools and Techniques, video content, assessments, and more. The general format and exercises are based on those used in the Goethe-Institute exams. However, if you are preparing for a particular exam, we recommend you to enroll yourself in one of our specific exam preparation courses.

LEARNING BENEFITS:

1. Initiate Conversation about Present, future, and past events
2. Explain Habitual action and talk about the memories
3. Describe Feelings and express present and future wishes
4. Learn the basics of Sentence and Word building
5. Express Opinion and argue with people
6. Talk and describe Past events and express Doubts & Probability
7. Make Hypothesis about the past events and explain them
8. Learn extensively about the Advanced German Language Grammar

CAREER BENEFITS:

1. Exposure to Millions of Jobs Globally in the Arena of German Language Course
2. Be Highly Paid as a Freelancer or as a full-time Professional after the Successful completion of German Language Training Course
3. Improve your CV & LinkedIn Profile with Technical & Professional development
4. Distinguish your Profile from peers and get Promoted in Current Profile with most in demand Skills


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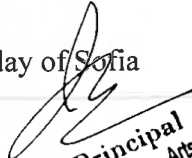
5. Distinguish your profile with the Course Completion Certification of German Language Training Course
6. Better Job Security with exceptional growth opportunities
7. Improve your employment chances in Germany, Switzerland, Austria, and EU Countries
8. Get hired as a Translator for an Indian Government Organization, MNCs, NGOs

GERMAN A1 COURSE CONTENT

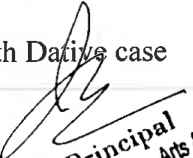
Sl. no	Chapter Name	Topics Covered
1	Guten Tag! (Good Day, Good Afternoon)	<ul style="list-style-type: none"> • Learning Alphabets and Numbers: One to Ten • W-Questions and Self-Introduction • Learning Personal Pronouns and auxiliary verbs • Talking about Countries and other languages • Learning a few verbs like: Come, speak, etc. • Greetings and say bye • Learning German language words and same words in other languages • Learn verb Conjugation
2	Freunde, Kollegen und ich (Friends, Colleagues and Me)	<ul style="list-style-type: none"> • Talking About Hobbies • Verb Conjugation like auxiliary verbs, regular and irregular verbs • Learning articles • Yes or No questions • Understand plural article • Learning Number from 20 • Talking about Work and Professions • Learning Days and Months • Learning personal information • Creating Simple sentence like: What do you like, I like dance, I like singing, etc.
3	In der Stadt (In the City)	<ul style="list-style-type: none"> • Imperative sentences with "you" • Irregular Verbs • Definite and Indefinite article with gender • Talking about Places and building names in Germany • Listening audio • discussion with the taxi driver


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		<ul style="list-style-type: none"> • Asking simple questions using what, that etc. • Explaining the way to an unknown person • Talking about Events • Learning Articles Rules
4	Guten Appetit! (Enjoy the Meal)	<ul style="list-style-type: none"> • Verb Conjugation with Irregular and Modal Verbs • Verb Position in Sentence • Accusative Articles • Accusative Verbs • Talking about food and eating • The vocabulary of food, vegetables, drinks, etc. • Listening Audio • Discussion about breakfast, lunch, and dinner • send the invitation to a party • Purchasing things in the supermarket • Talking about food places and profession
5	Tag für Tag (Day for day)	<ul style="list-style-type: none"> • Learning Time-related Prepositions • Learning Possessive Articles like Mine, your, his, etc. • Learning Modal verb conjugation with Personal Pronoun • Modal verb position in sentence • Talking about time and time-related conversation • Small conversation day-to-day routine • Listening audio • Sending Mail using modal verbs • Talking about the web page and discussing photos • Listening to audio about appointments with doctor • Listening to audio and discussing talking about family day-to-day routine
6	Zeit mit Freunden (Time with Friends)	<ul style="list-style-type: none"> • Learning Separable Verbs • Learning past tense with be and have verbs • Personal Pronouns in Accusative • Accusative Propositions • Talking about the ordinal numbers “on” and “When” like First, Second, etc.. • Birthday celebration • Discussing on surprising birthday of Sofia


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		<ul style="list-style-type: none"> • Discussing in the hotel • Free time program in Germany
7	Kontakte (Contact)	<ul style="list-style-type: none"> • Learning Dative Prepositions • Short form of articles • Possessive article in Accusative • Brief Discussion on finding an office with an audio • Discussion on the first day in the office with audio • Studying a letter format • Discussion about Social media in Germany • Self-introduction in the workshop and talking about another thing
8	Meine Wohnung (My Apartment)	<ul style="list-style-type: none"> • Learning adjectives with “be” verbs and “very/too” • Changing prepositions with accusative and Dative • Learning colors vocabulary • Talking about apartment and vocabulary • Searching apartments and collecting information about apartments from other sources • Talking about the new apartment with audio • Kind of building name and discuss
9	Alles Arbeit? (All is Work?)	<ul style="list-style-type: none"> • Learning Past Perfect tense with auxiliary verbs • Learning Partizip II with regular and irregular verbs • Learning connecting words and sentences with and, but, and or • Talking and explaining about work • Searching jobs through various media like advertisement, paper, etc. • A telephone conversation through audio • Talking about jobs around the place
10	Kleidung und Mode (Cloths and Fashion)	<ul style="list-style-type: none"> • Learning Interrogative article and creating sentences with word “Which” • Understanding Demonstrative article with “this” word • Learning Dative verbs • Learning Personal pronouns with Dative case


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		<ul style="list-style-type: none"> • Partizip II with Separable and non-separable verbs • Talking about clothes and fashion • A conversation about purchasing clothes in various “Cloth sales centers” • Conversation on cloth exchanging • Learning cloth-related vocabulary • Discussing some popular and old shopping centres in Germany
11	Gesund und munter (Healthy and Cheerful)	<ul style="list-style-type: none"> • Imperative Sentences with “You” • Learning modal verbs like Must and should • Talking about health and healthy food • Talking about fitness • Learning vocabularies of the body • Discussing sports exercises and sport related words • Talking about the accident and listening to the audio • Conversation with doctor • Discussing about Home Remedies • Understand health-related professions, tips, etc.
12	Ab in den Urlaub! (In the Vacation)	<ul style="list-style-type: none"> • Learning Pronouns with “one” • Learning W-Questions • Learning time adverbs like: first, then, later etc. • Talking about vacation and vacation-related vocabulary • Discussion about city travel • Conversation in Hotel room • Complaining in Hotel

Terms and conditions of certification

All those candidates who have 90% attendance will be allowed to appear for the final written examination of the course. Certificate of completion will be awarded to only those students who fulfill the above said attendance criteria along with their performance in the written examination.



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College of Commerce, Arts & Science, Patna

Certificate Course in Communicative English

Objectives

- To develop communicative competence in the students
- To expose the students to the employment opportunities challenges and job roles
- To develop and integrate the use of four language skills i.e. listening, speaking, reading and writing
- To encourage students to use English in their day to day life

Learning outcomes

After completion of the course the student should be able to:

- Express ideas in clear and grammatically correct English without hesitation
- Develop their personality.
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Course Module:

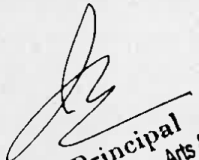
Unit 1 (10 Hrs)

- **Communication**
 - definition and major types of communication
 - process of communication
 - characteristics of effective communication
 - barriers of communication

Unit 2 (11 Hrs)

- **Grammar and its usage**
 - sentence structure
 - subject verb agreement
 - time and tense
 - articles
 - Prepositions

Unit 3 (11 Hrs)



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- **Reading and Writing Competence**
- Reading Comprehension: Identifying main ideas drawing inferences& summarizing
- Precis Writing
- Application and letter writing
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- Resume /C.V

Suggested readings

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For Admission Details Contact:


Prof. (Dr.) Saloni Prasad (Mrs. Kumar)
Course Co-ordinator
Professor, Dept of English
College of Commerce, Arts & Science, Patna-20


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Patna- 800020

Course: Vedic Mathematics

Duration: 30 hours

Course Objectives:

The main objectives of the course are

- Enhance calculation speed and numerical skills through Vedic Mathematics
- Develop logical and analytical thinking
- Sharpens the brain
- Crack entrance exams and get scholarship
- Provides an insight into ancient Indian mathematics

Course Syllabus:

Unit-I: Introduction to Vedic Mathematics, Vedic Maths Formulae-Sutras and sub-Sutras, Concept of Base and Compliments, Vedic methods of Addition, Addition without Carry Forward. [5 hours]

Unit-II: Vedic methods of Subtraction (all from 9 last from 10), Subtraction from numbers like 100, 1000, 10000..., Decimal numbers subtraction. [5 hours]

Unit-III: Magical Multiplication with 11-19, General multiplication- 2×2 , 3×2 , 4×2 , 3×3 , Magical Multiplication, Base Value Multiplication (Nikhilam Method). [8 hours]

Unit-IV: Sutra for finding Square of a number, Square of any two digits numbers- Base methods, Square of numbers ending with 5, Square root, Cubing (Yavadunam Sutra). [4 hours]

Unit-V: Magical Calander for year 2020, Magical Calander Concept (2001-2020), Concept of 100 Years Calanders. [8 hours]

Suggested Readings:

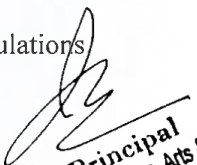
1. Sumita Bose -2017 "Vedic Mathematics"- V&S Publishers, New Delhi.
2. H.K. Gupta -2014 "Vedic Mathematics"- BPI Publishers, New Delhi
3. Vedic Mathematics Made Easy, Dahawal Bhatia, Jaico Publication, New Delhi, 2011.

Course Outcomes:

At the end of the course the students will be able to:

- do faster calculation as compared to the traditional method.
- utilize Vedic sutras to enhance their skills for competitive examinations and able to solve question quickly in competitive examinations.
- provides an easy and convenient solution to difficult mathematics problems and calculations
- enhance mental concentration.

Sharma


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COLLEGE OF COMMERCE, ARTS & SCIENCE
PATNA-20
(A Constituent Unit of Patliputra University, Patna)



Certificate Course in
Renewable Energy



About College

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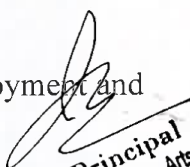
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Course Objectives

1. To provide theoretical and practical understanding of Renewable Energy.
2. To provide knowledge on various schemes undertaken by government for skill based green jobs as a career option.
3. To encourage entrepreneurship

Course Outcome

1. A student will have knowledge about the emerging area of renewable energy systems.
2. A student will have knowledge about the Energy Storage systems
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Principal
College of Commerce, Arts & Science
Patna- 800020

Mode of Learning

Hybrid

Online: Google Meet

Offline Class Room: Physics Department Smart Lecture Hall

Schedule of Course

Two batches in every academic session

1st August to 30th November & 15th January to 15th May

Total Week: - 16 Weeks (40 Hours)

How can you apply for this course ?

All candidates are advised to contact course coordinator for admission. Only first-come-first-serve basis is allowed for application. Any students from our college already enrolled under any course can apply for this course.

Syllabus

Module 1: Introduction to Renewable Energy

Overview of renewable energy sources

Importance of renewable energy in addressing climate change

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Types of hydropower systems

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Geothermal heat pumps

Geothermal power generation

Geothermal applications in heating and cooling

Module 7: Energy Storage

Importance of energy storage in renewable energy systems

Battery technologies (e.g., lithium-ion, flow batteries)

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Module 8: Grid Integration and Energy Management

Challenges and solutions for integrating renewable energy into the grid

Smart grid technologies

Energy management systems and demand-side management

Module 9: Renewable Energy Policies and Economics

Renewable energy incentives and subsidies

Economics of renewable energy projects


Case studies of successful renewable energy initiatives

Module 10: Future Trends and Innovations

Emerging technologies in renewable energy

Microgrids and decentralized energy systems

Ethical and sustainability considerations in renewable energy


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Assessment:

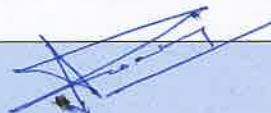
Quizzes and assignments


Class participation

Group project on a renewable energy system design or feasibility study

Why you should Join the Course ?

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**College of Commerce, Arts & Science, Patna
(Patliputra University)**

**Internal Quality Assurance Cell
Organizing a Certificate Course in**

“Stress Management”

Patron

Prof. Tapan Kumar Shandilya

Principal

IQAC Co-ordinator

**Dr. Santosh Kumar
Associate Professor**

Course Co-ordinator

**Dr. Ravi Ranjan
Assistant Professor**


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Course Description:

Stress is a fact of life, wherever people are and whatever they are doing. It cannot be avoided, but one can learn to manage it. This course is designed to expose students to a holistic approach regarding stress management. It will help them to learn to reduce the negative impacts caused by stress and to improve their physical and mental well-being. The students will learn Physical, behavioural, cognitive, affective and spiritual (coping) skills, and a host of relaxation techniques with the intention to prevent and alleviate the physical and psychological symptoms of stress. This course will provide both theoretical and experiential learning.

Duration:

30- hour course over 3 weeks (2 hour each session, five times a week).

Objectives:

- To understand the nature of stress.
- To be able to recognize sources of stress.
- To recognise the stressors, adaptive and maladaptive behaviour.
- To understand the impact of stress on health and performance.
- To provide different techniques of stress management.
- To explain the importance of physical exercise in combating the effects of stress.
- To prepare for better mental and physical health.

Course outcomes:

- Understanding the nature, causes and sources of stress.
- Managing better physical and mental health.
- Learn managing optimal performance.
- Learn Managing Work-Life Balance.
- Better relationship with family and friends.
- Learning self- care through lifestyle changes.
- Acquiring life skills and preparing for better future by reducing the stress.

Certification: Upon successful completion of this course with 80% of attendance participants will be issued with a certificate.


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Course Content:

Module 1: Stress in life: Meaning and nature of stress, Difference between eustress and distress.

Module 2: Understanding stressors: Sources of stress across the lifespan, Cognitive appraisal of stress; General adaptation to stress, Adaptive and maladaptive behaviour.

Module 3: Stress and Physical Health: Stress and cardiovascular disease, Stress and cancer, Stress and high blood pressure, Stress and the immune system, Stress and asthma, Stress and gastrointestinal disorders.

Module 4: Stress and Performance: Stress and Cognitive Variables, Common stressors at work place, Stressors unique to age and gender.

Module 5: Stress and Adolescence: Psychosocial problems, Major stressors; Reaction to Stressors: Depression, Aggression, Suicidal behaviour, and Drug abuse.

Module 6: Strategies of Stress Management: Prevention of stress: Challenging Stressful Thinking, Coping: Concept, Process, Types of coping styles, Factors affecting coping, Management techniques: Physical, cognitive, affective, behavioural and spiritual.

Module 7: Other strategies: Self-care: Nutrition and Other lifestyle changes (Stress reduction practices: Time management, Exercise, Relaxation techniques, Yoga, Meditation).



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College of Commerce, Arts & Science, Patna
(Patliputra University, Patna)

Internal Quality Assurance Cell
Organizing a Certificate Course in

“Personality Development”

Patron


Prof. Tapan Kumar Shandilya
Principal

IQAC Co-ordinator

Dr. Santosh Kumar
Associate Professor

Course Co-ordinator

Dr. Vandana Maurya
Assistant Professor


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College of Commerce, Arts & Science
Patna- 800020

Course Description:

Every individual possesses a unique set of traits and characteristics, which remains stable overtime. This uniqueness and consistency forms the aspects of personality. It is the stability of these characteristics that sometimes assist in predicting behaviour of a given person. There are many factors like biological characteristics, family and social groups, cultural and social factor, which contributes towards the formation of personality. An individual can be manifested in various forms like authoritarian personality, bureaucratic personality, and Machiavellian personality, etc. There are many theories that are developed in predicting the behaviour of an individual on the basis of various attributes. Some tests are also designed to assess the personality of an individual. On the other hand, good communication is vital to any institution's successful operation and equally imperative for a man's personality development. Therefore, combined with the convincing evidence that most organizational communication is inadequate, leads to yet another conclusion: that communication is an area that deserves further study by those concerned with improving organizational operations. Two-way communication is more effective than one-way communication. The feedback allows the sender to refine his communication so that it becomes more precise and accurate. Receivers' self-confidence is higher in case of two-way communication as they are permitted to ask questions and seek clarification from the senders. Hence, in this course, the theories and practices would be deliberated.

Duration:

45-hour course (2 hours each session, six days a week).

Objectives:

1. Exposing participants to the fundamentals of personality development and communication skills practices.
2. Building in confidence and capability amongst the participants with regard to personality development and communication skills.
3. Providing exposure to practical problems and their solutions, through case studies and live projects in personality development process and communication skills.



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4. Enhancing the capability of the participants to identify, control and improve personality development indicators and enhanced communication skill.

Course outcomes:

- Understanding the origin and development of personality.
- Managing better physical and mental health.
- Learn to manage optimal performance.
- Learn to manage work-life Balance.
- Better relationships with family and friends and soft skills utilization.
- Learning self-care through lifestyle changes.
- Acquiring life skills and preparing for a better future by reducing the stress.

Certification:

Upon successful completion of this course, participants will be issued with a certificate.

Course Content:

UNIT I Introduction to Personality Development

The concept of personality - Dimensions of personality – Theories of Freud & Erickson- Significance of personality development. The concept of success and failure: What is success? - Hurdles in achieving success - Overcoming hurdles - Factors responsible for success – What is failure - Causes of failure. SWOT analysis.

UNIT II Attitude & Motivation

Attitude - Concept - Significance - Factors affecting attitudes - Positive attitude – Advantages – Negative attitude- Disadvantages - Ways to develop positive attitude - Differences between personalities having positive and negative attitude. Concept of motivation - Significance – Internal and external motives - Importance of self- motivation- Factors leading to demotivation

UNIT III Self-esteem

Term self-esteem - Symptoms - Advantages - Do's and Don'ts to develop positive self-esteem – Low self- esteem - Symptoms - Personality having low self-esteem - Positive and negative self-esteem. Interpersonal Relationships – Defining the difference between aggressive, submissive and assertive behaviours - Lateral thinking.

UNIT IV Other Aspects of Personality Development

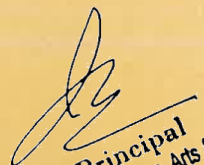
Body language - Problem-solving - Conflict and Stress Management - Decision-making skills - Leadership and qualities of a successful leader – Character building -Team-work – Time


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management: - Work ethics –Good manners and etiquette.

UNIT V Employability Quotient

Resume building- The art of participating in Group Discussion – Facing the Personal (HR & Technical) Interview -Frequently Asked Questions - Psychometric Analysis - Mock Interview Sessions.

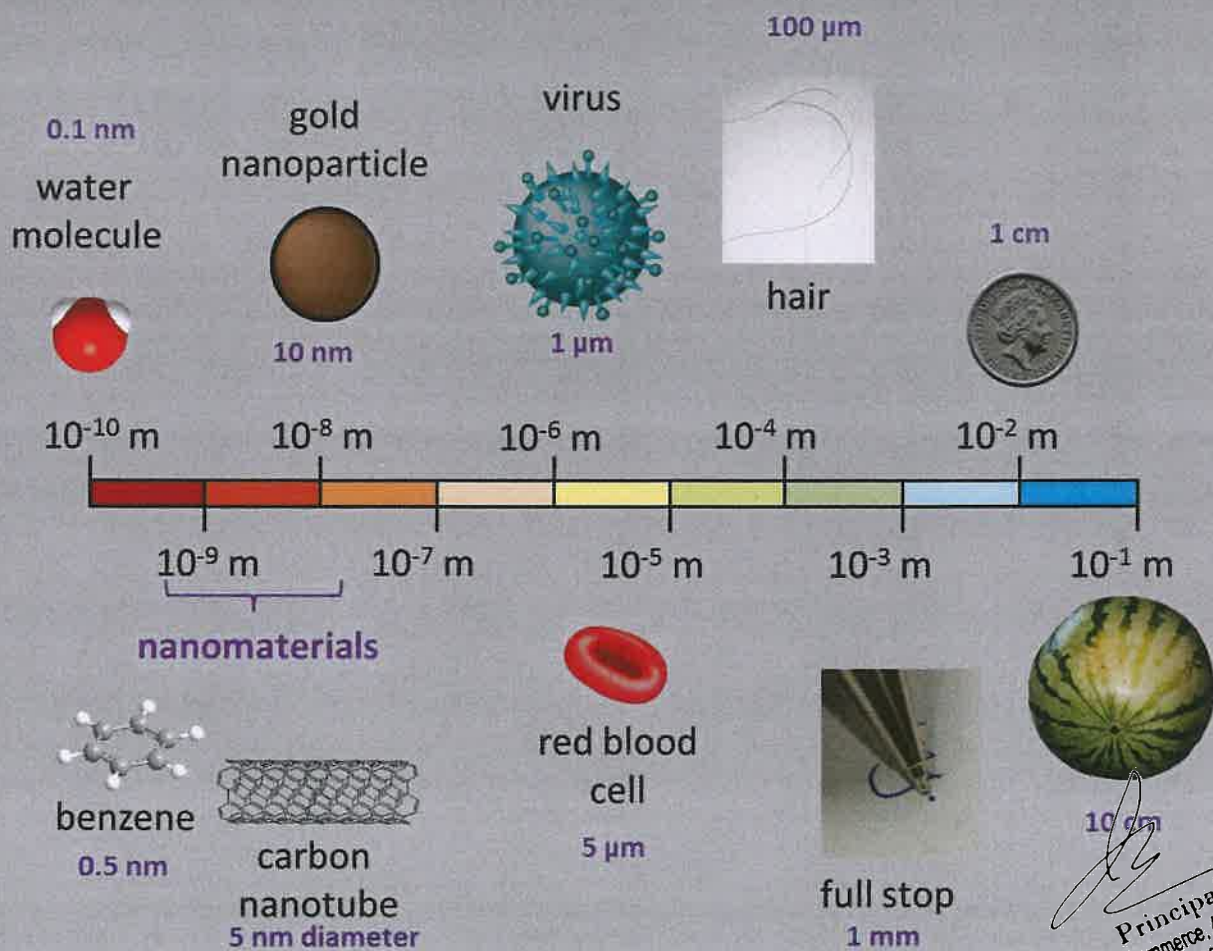


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COLLEGE OF COMMERCE, ARTS & SCIENCE
PATNA-20
 (A Constituent Unit of Patliputra University, Patna)



Certificate Course in
Nanotechnology



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About College

College of Commerce, Arts & science, Patna, established in 1949, recognized under Sections 2 (f) and 12 (B) of the UGC Act 1956 is a premier constituent College of Patliputra University. College was established by great visionary Late Pt. Indu Shekhar Jha on the advice of Dr. Rajendra Prasad with a pious motive to make quality education accessible for aspiring youths without any discrimination based on socio-cultural-economic grounds. The vision of its great founder Pt. Indushekhar Jha was to make the commerce education accessible to the underprivileged and subaltern students of Bihar, which was rarely available. This revered institution started its journey from a small campus where P. N. Anglo School is located now to its present campus. Flowing in the incessant flow of imparting knowledge and being exposed to the warmth of time, this institution went on incorporating many streams in itself and today in this college education is imparted in the faculties of Sciences, Social Sciences, Commerce, Humanities and Law up to postgraduate levels. It is one of the oldest academic institutions located in the heart of the capital of Bihar, Patna. The College is situated in the exclusive neighborhood of Rajendra Nagar Railway Terminal and inhabits a 5.89-acre plot campus. The lush green landscape invites an aesthetic charmer and enhances the College atmosphere to an educational eden.

About the Course

Nanotechnology is broad interdisciplinary areas that encompass (bio)chemistry, physics, biology, materials science, electrical engineering and more. The present course will provide a survey on some of the fundamental principles behind nanotechnology and nanomaterials and their vital role in novel sensing properties and applications. The course will discuss interesting interdisciplinary scientific and engineering knowledge at the nanoscale to understand fundamental physical differences at the nanoscale.

Course Objectives

The course main objective is to enhance critical, creative, and innovative thinking. The course encourages multicultural group work, constructing international 'thinking tanks' for the creation of new ideas. Throughout the course, you will be asked to reflect upon your learning, think "out of the box", and suggest creative ideas.

Course Outcome

1. Apply principles of basic science concepts in understanding, analysis and prediction of matter at Nano scale.
2. To introduce interdisciplinary subjects/concepts/ideas for interdisciplinary application of science and engineering concepts.
3. To introduce advanced ideas and techniques required in emergent area of nanotechnology.
4. Engage in lifelong learning and adapt to changing professional and societal needs.
5. A student will be able to consider nanotechnology as a means of self-employment and source of income.


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Mode of Learning

Hybrid

Online: Google Meet

Offline Class Room: Physics Department Smart Lecture Hall

Schedule of Course

Three batches in every academic session

Total Duration: - 32 Hours

How can you apply for this course ?

All candidates are advised to contact course coordinator for admission. Only first-cum-first-serve basis is allowed for application. Any students from our college already enrolled under any course can apply for this course.

Syllabus

Week 1: Introduction to Nanotechnology

Overview of nanoscale science and engineering

Historical perspective and key milestones

Interdisciplinary nature of nanotechnology

Week 2: Nanomaterials

Properties and synthesis of nanomaterials

Characterization techniques: TEM, SEM, AFM, XRD

Applications of nanomaterials in industry

Week 3: Nanofabrication Techniques

Top-down and bottom-up fabrication approaches

Photolithography, electron beam lithography, and nanoimprint lithography

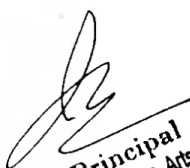
Chemical vapor deposition, atomic layer deposition, and self-assembly

Week 4: Nanoelectronics

Introduction to nanoelectronics and Moore's Law

Nanoscale transistors and their limitations

Emerging nanoelectronic devices (e.g., memristors, quantum dots)


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Week 5: Nanophotonics and Plasmonics

Basics of light-matter interactions at the nanoscale

Nanophotonic devices: waveguides, sensors, and modulators

Plasmonics for enhanced light-matter interactions

Week 6: Nanomagnetism

Magnetic nanoparticles and their applications

Magnetic data storage and spintronics

Magnetic nanoparticles in biomedicine

Week 7: Nanobiotechnology

Nanomaterials in biological and medical applications

Drug delivery systems and theranostics

Ethical considerations in nanobiotechnology

Week 8: Nanotechnology in Energy

Nanomaterials for energy storage and conversion

Solar cells, batteries, and fuel cells

Environmental implications of nanotechnology

Week 9: Nanosafety and Regulation

Health and safety considerations when working with nanomaterials

Regulatory frameworks for nanotechnology

Risk assessment and mitigation strategies

Week 10: Nanotechnology Entrepreneurship

Startups and commercialization in nanotechnology

Business models and funding opportunities

Intellectual property and patents

Week 11: Future Trends in Nanotechnology

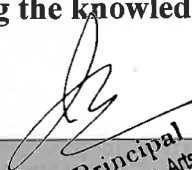
Quantum nanotechnology and quantum computing

Nanorobotics and molecular machines

Ethical, societal, and environmental implications of future nanotech

Week 12: Capstone Project

Students work on a small-scale nanotechnology project or case study, applying the knowledge and skills gained throughout the course.


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Assessment:

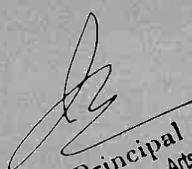
Quizzes and assignments

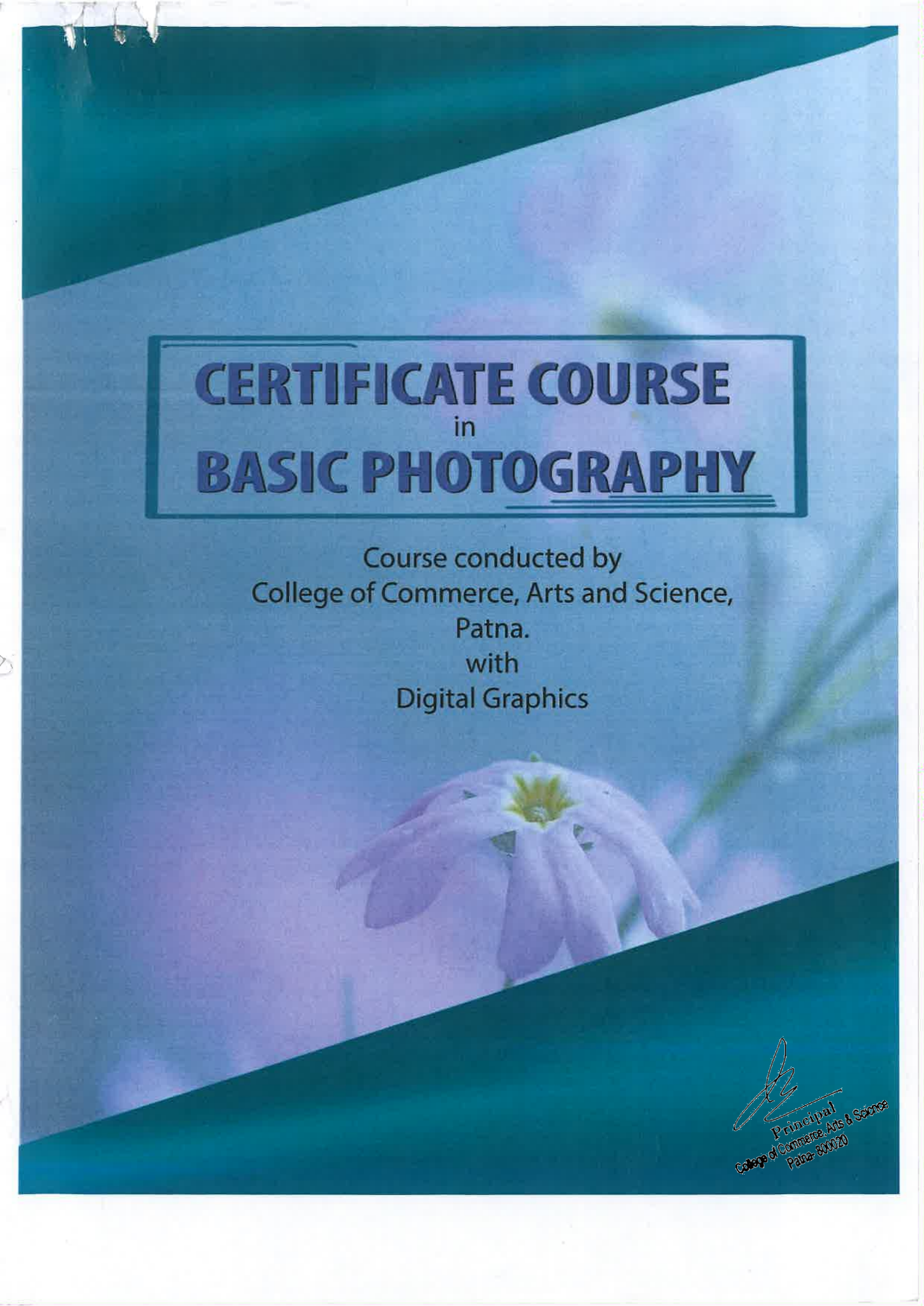
Class participation

Group project on a renewable energy system design or feasibility study

Why you should Join the Course?

Nanotechnology is the study of controlling matter on a nuclear, atomic and supramolecular scale. The field of **Nanotechnology** is very diverse that includes new methodologies dependent on sub-atomic self-gathering, control of the issue on a nuclear scale, and advancement of new materials with measurements on the Nanoscale. The study of **Nanotechnology** involves the utilization of various fields of science. Such fields include organic chemistry, microfabrication, molecular biology, atomic science, surface science, and semiconductor material science. The ones who mean to have a career where they get the opportunity to leap forward in advancement in the field of science need to look no further as **Nanotechnology** is the eventual fate of science.


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CERTIFICATE COURSE in **BASIC PHOTOGRAPHY**

Course conducted by
College of Commerce, Arts and Science,
Patna.
with
Digital Graphics


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Objective

The objective of the Certificate course in Basic Photography is to develop and nurture the basic understanding of Photography among the students. This course will provide an in depth understanding of the various factors that can affect the quality of images and also about the challenges that are likely to come up while clicking the most impressive pictures. Students will be exposed to different kinds of photography practices such as Photojournalism, Product, Sports, Wedding, Industrial, Documentary and Mobile photography.

Mentor

Mr. Suman Mukherjee,
Professional Photographer
M.A (History), Dip. in Photography
RKV, University of Calcutta,
Life Member- FIP,
Owner- Digital Graphic




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Course Structure

Sl. No	Course Content	Duration
1.	Introduction to Image Making- Stops, Film Speed, Shutter Speed, Aperture, Av & Tv Together, Lighting, Camera Shooting Modes, Composition, Lenses, Depth of Field, The Rule of Thirds, Framing, Fill the Frame, Landscapes.	4 hours
2.	Basics of Digital Photography- Introduction, Understanding the terminology used for the digital camera, Acquiring basic knowledge of taking a picture with the digital camera, using different methods in accordance with various situations, Basic knowledge of taking a picture with digital cameras, Terminology used for digital cameras, Equipment you will need, Prerequisite Knowledge or skills	8 hours
3.	Basic Lighting and Flash techniques- Styles of Lighting, Broad Lighting, Short Lighting, Narrow lighting, Butterfly Lighting, Rembrandt Lighting, Three-point lighting, Key light, Tungsten lights, What is Light, Light Examples	4 hours
4.	Writing for Photography- Photography, History, Macro-photography is the form of photography, How to take good photographs, Review of important settings, Taking photos at night, Taking close-up photos.	4 hours
5.	Studio Portraiture- Portraiture, Lesson Objectives, Introduction Discussion, Image Based Discussion, Activities/Projects, The Editing Stage, The Outsourcing Stage, The Capturing Stage	4 hours
6.	Commercial Photography- Making Great Pictures, Special Photographs, Seeing Well, Behind the Lens, Camera Equipment—What You Need, Basic Camera Controls, Lenses and Focal Length, Behind the Lens, Special-Purpose Lenses, Shutter Speeds, Panned-Action Images. (Practical Session will be done as per requirement)	8 hours


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Learning Outcomes

Upon successful completion of the program, students will be able to:

Create artistic photo with their acquired knowledge.

Knowledge of Composition, Light sense, quality enhancement will be grown within them.

Select and use photographic equipment and technologies appropriate to the task.

Demonstrate effective use of written, verbal, and non-verbal communication, employing relevant knowledge, skills, and judgment in a business setting.

Work as a professional photographer in different event, companies, organizations etc.

Use and adapt to a variety of computer software and hardware for both photographic and business purposes.

For Admission

Call - 8372098447 or E-mail - ayanmukherjee88@gmail.com

Classes Details

Practical Classes with mobile camera

Classes of these courses shall be on weekend days.

Timing : 08.00 AM to 10.00 AM

Course Co-ordinator

Dr. Ayan Mukherjee

Assistant Professor, Dept. of Physics,
College of Commerce, Arts and Science, Patna.

Ayan Mukherjee
Dr. Ayan Mukherjee
Assistant Professor
Department of Physics
College of Commerce, Arts & Science, Patna



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Certificate Course
on
"Application of Geographical Information Systems"

About the course:

Geographic information system is one the major component of Geo-spatial technologies. Spatial data are becoming crucial and being part of everyday life, GIS help to collect, manage, analyse and produce output from spatial data in an efficient way. Today, GIS technology is not limited to mapping as before, and used in various fields for visualisation, spatial analysis, machine learning (including artificial intelligence), and decision making. "People looking to make career in Remote Sensing industry can foresee big growth across Agriculture, Insurance, Disaster Management, Urban Management, Energy and many other sectors; but at the same time, you need to be more technical and solution driven". The workshop is designed for students with no prior knowledge and will offer essential and practical understanding and linkages of Remote sensing and GIS concepts, tools and real applications.

Highlights of the Course:

- Overview on Remote sensing and GIS
- Available data source, data formats and data download
- Maps concepts and Map projections- coordinate system and projection system
- Handling Vector and Raster Data in QGIS platform
- Creating thematic map from satellite image: Image Digitization and error handling

Course Coordinator

Dr. Vidya Yadav
Assistant Professor
Dept. of Geography,
College of Commerce, Arts & Science, Patna-20

Resource Person


Miss. Ananya Kumari
Senior Executive
Scanpoint Geomatics Ltd.

**For registration: Visit College of
Commerce, Arts & Science website**

Time: 04:00 P.M. to 6:30 P.M

Certificate and Handouts will be provided to the participants

Links for the session will be shared over email


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DAYWISE DETAIL PROGRAMME (35 Hours Course Module) (Hybrid Mode)

Units	Topics		
Unit 1	An Introduction to Remote Sensing & GIS	How to install QGIS and its Plugins 3. Components of GIS system 4. GIS capabilities and function 5. Spatial data Infrastructure	Vector Geometrics, Vector Information, Raster Basics, Data attribute table
Unit 2	Introduction to Map making	Geo-referencing of the given Map in QGIS, Geo-referencing (image to image) Raster to vector advance vector creation	Basic concept of coordinate system, projection, GPS System (Practical practice session)
Unit 3	Sources of data input; Generation of Geo-data bases; Data base management system; Spatial topology	Data attachment Use of excel sheet and CSV file join fields & Create Thematic maps-I	Pie diagram, Histogram Dot Distribution Map Graduated Symbol Map
Unit 4	Spatial Analysis: Understanding where things are or where events occur., Measuring sizes, shapes, and distributions of things or measurements., Analysing relationships and interactions between places., Optimizing locations for facilities, or routes for transportation	Integration of raster and vector data, Spatial join, Table join, Spatial query	Practical practice session
Unit 5	Join fields & Create Thematic maps-II	Choropleth Map Density mapping	Query building in QGIS
Unit 6	Visual Image Interpretation	Image Processing in QGIS	DEMs and their application (Hands-on)
Unit 7	Practice on shapefiles and attribute table	Hands on Practice	Valedictory Session
The END			


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Department of Economics
College of Commerce, Arts & Science, Patna

Three- Months Certificate Programme

Students will get a chance to pursue value added course along with the subjects that they have opted for with an objective to increase their learning output.

Course Name: Applied Financial Literacy & Banking

Course Co-Ordinator: Dr Baikunth Roy

Assistant Professor
Department of Economics, College of Commerce, Arts & Science, Patna-20

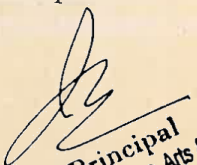
Eligibility & Schedule of the Course

Potential Participants:	10+2 or its equivalent
Duration:	Three Months (12 weeks) Three classes per week tentatively
Number of Hours:	36 Hours
Mode of Learning: Hybrid:	(Online+Offline)
No of Students:	120

Medium of Instruction of the Course: English & Hindi

Vision: To educate and empower students with financial knowledge and resources, so they can ultimately apply this knowledge to their lives, have financial security and attain financial wellness.

Mission: To provide a holistic financial literacy curriculum offered at multiple touchpoints throughout a student's educational journey.


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Learning Objectives:

The Learning Objectives of this course are as follows:

- Familiarity with different aspects of financial literacy such as savings, investment, taxation, and insurance
- Understand the relevance and process of financial planning
- Promote financial well-being

Expected Learning outcomes:

The Learning Outcomes of this course are as follows:

- Develop proficiency for personal and family financial planning
- Apply the concept of investment planning
- Ability to analyse banking and insurance products
- Personal tax planning

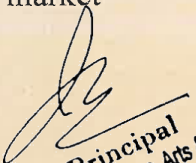
Thus, It will make a more responsible individual with a disciplined approach to money and helps people from overspending and inculcates a habit of savings and investments. In short, Students will demonstrate knowledge of money management within three main areas: responsible borrowing, budgeting, and credit.

SYLLABUS OF FINANCIAL LITERACY

Unit: I- Basics of Savings and Investment: Why are investing and savings important? Savings Vs Investment, Power of Compounding, What should be the investment objectives? Risk and Return, Inflation effects on Investment, Investor's Age and Assets Allocation.

Unit: II- Banking Activities: Deposits and Types of Deposits-Saving Bank Accounts, Fixed Deposit Accounts, Recurring Deposit Account, Special Term Deposit Schemes, Loans and Types of loan advanced by Banks and other secondary functions of Bank. Banking structure in India and Role of Reserve Bank of India.

Unit: III- Financial Markets: Capital Market Vs Money Market, Securities and its types, i.e., Equity, Debentures or Bonds, IPOs and FPOs, Mutual Funds, Types of Mutual Funds, Brokers, sub-brokers, Process for becoming a capital market investor.


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Unit: IV- Protection Related products: Insurance Policies, Life Insurance, Term Life Insurance, Endowment Policies, Pension Policies, ULIP, Health Insurance and its Plans, Understanding of Ponzi Schemes.

Unit: V- Tax Saving Schemes: Government Schemes- National Saving Certificates, Public Provident Fund, Post Office Schemes, Equity Linked Savings Schemes, Retirement Benefits Schemes- NPS (New Pension System).

Note: Some of the theoretical concepts would be dealt with during practice hours.

Assessment Details

The students have to mandatorily maintain 75% attendance. After that, they will be allowed to sit in the final examination. The examination will carry 100 marks. It will be a 3 hours exam. The examination paper will consist of both objective and subjective questions.

Essential/Recommended readings

Introduction to Financial Planning (4th Edition 2017)- Indian Institute of Banking & Finance.

Indian financial System, by T. R. Jain and R. L .Sharma, VK Global Publisher.

Money and Banking by T. R. Jain and R. K. Kaundal, VK Global Publisher


Investment Planning by SEBI.

Suggested Readings

• Halan, Monika, Let's Talk Money: You've Worked Hard for It, Now Make It Work for You, July 2018 Harper Business.

• Pandit, Amar The Only Financial Planning Book that You Will Ever Need, Network 18 Publications Ltd.

Sinha, Madhu. Financial Planning: A Ready Reckoner July 2017, McGraw Hill.


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Department of Economics
College of Commerce, Arts & Science, Patna

Three- Months Certificate Course

Students will get a chance to pursue value added course along with the subjects that they have opted for with an objective to increase their learning output.


Course Name: Foundations of Gender Studies

Course Co-Ordinator: Prof (Dr) Rashmi Akhoury

Department of Economics, College of Commerce, Arts & Science, Patna-20

Course Description

Potential Participants:	10+2 or its equivalent
Duration:	Three Months (12 weeks) Three classes per week tentatively
Number of Hours:	36 Hours
Mode of Learning: Hybrid:	(Online+Offline)
No of Students:	150
Medium of Instruction of the Course:	English & Hindi


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Course Objectives:

This Course seeks to build gender studies perspective to knowledge production.

Key Objectives:

This Course seeks to

1. Introduce participants to the field of women's/ gender studies and critical debates in it in India
2. Build gender studies perspective to knowledge production.
3. Introduce students to writing research/ field report
4. To develop gender sensitive pedagogy and knowledge system
5. To introduce epistemological and ontological aspects of gender studies to academicians coming from different streams of knowledge in a structured manner.

Learning Outcomes

A gender bias free teaching –learning process can be instrumental in bringing about positive social change towards an egalitarian society. A faculty member who values practices and espouses gender equity would inspire his/her students to make their career decisions in an unbiased and confident manner leading to judicious presence of males and females in all areas of study and profession. This course will provide academic perspectives and inputs to policy makers whereby they will be able to address the problems of gender bias in the society through enabling policy making and legislation.

Course Outline

The Course is broadly categorized into ten themes and designed to span forty modules. These modules deal with the concepts, theories, research methodologies, movements, programmes and policies related to the gender studies.

Unit-1

Constructing Gender - Introduction to women's/ gender studies - What is women's studies? Emergence and growth of women's/ gender studies in India, engendering of disciplines and disciplining of gender.

- Core Concepts of Gender/Evolution in Gender Studies

- Patriarchy: Power, Structure and Practices
- Masculinity/Femininity: An Overview

Unit 2

Constructing Gender & Inter-sectionality/Gender Mainstreaming: Theoretical Issues and Debates

- Understanding Sexuality: Conceptual Underpinnings
- Inclusion, Exclusion, Discrimination: Caste, Class, Ethnicity
- Waves of Feminism/Gender Theories

Unit 3

Inter-sectionality/Gender Mainstreaming: Theoretical Issues and Debates & Women in History

- Political Ideologies & Women- Liberal, Radical Socialist and Communist
- Gender Equity and State Policy for Gender Mainstreaming
- Gender Historiography (Representation of Women in History)

Unit 4

Women in History & Women's Struggle and Movements: Evolution and Key Debates

- Status of Women in Ancient, Medieval and Modern India
- Social Reform Movements in India (pre- and post-independence)
- Women's Movement in a Global Perspective (e.g., National Liberation movements, suffragette movement)

Unit 5

Women's Struggle and Movements: Evolution and Key Debates

- Women's Struggle and Movement in India: A Historical Perspective- 19th Century to date
- Beijing Declaration/ UN Documentations – Platform for Action (PFA)
- Case Studies (AFSPA, Women Refugees etc - in context of Human Security) (Domestic Law superseding International Convention)

Unit 6

Women's Struggle and Movements: Evolution and Key Debates & Major Initiatives and Interventions towards Women's Empowerment: Trends and Emerging Issues- Migrant and Refugee women

- Role of Non-Formal Politics/ Civil Society Movements
- Interventions towards empowerment- MDGs, SDGs, CEDAW (Global)
- Case Studies in Indian Context (MDGs, SDGs, CEDAW etc.)

Unit 7

Major Initiatives and Interventions towards Women's Empowerment: Trends and Emerging Issues- Migrant and Refugee women & Gender Equality and Women's Protection: Law and Legislation in India

- Feminization of Migration
- Refugee Women and Displacement for Development
- Indian Constitution & Status of Women (Roots of Violence, Social-Economic and Political Factors/ Power and Patriarchy)

Unit 8

Gender Equality and Women's Protection: Law and Legislation in India

- Amendments 73,74 (Empowerment of Women in Local/ Rural and Urban Government Acts: Domestic Violence, Prevention of Sexual Harassment/Vishaka Guidelines (History of Sexual Harassment at Workplace Laws/Acts)
- Uniform Civil Code/Personal Laws & Gender Justice
- Section 377 and the Supreme Court Judgement: Decriminalising Sexuality

Unit 9

Indian State and Public Policy: Processes and Outcomes

- Political Participation of Women
- Self Help Groups & Micro-economic Programs: Socio- economic and Political aspects
- Education Policy in India: Analyzing Outcomes and Challenges

Unit 10

Indian State and Public Policy: Processes and Outcomes & Women in Science, Technology & Sustainable Development

- Dealing with Disability- State policy and its Implementation
- Health Policies in India: A critical review (Rights of Women regarding their bodies (Surrogacy – Reproductive Health, etc)
- Globalization and Impact of Economic policy on Women (Major approaches; WID, WAD, GAD/ UN/ILO and Indian initiatives)

Unit 11

Women in Science, Technology & Sustainable Development

- Labour Work Participation/Labour Laws and Wage disparity (Leadership and employment (Managerial – Private and Public sector)
- Eco-Feminism (Forest Rights Act)
- Women in Science – ICT, STEM professional

Unit 12

Arts, Literature and Media: Gender & Representation

- Gender in Performing Arts
- Literature and Gender
- Women in/ and the Media

Unit 13:

Arts, Literature and Media: Gender & Representation & Feminist Research Methodology

- Women in a Digital World
- Feminist Methods in Social Science Research
- Invisibility of data and alternative research Paradigms

UNIT 14

Research on Gender Mainstreaming / inter-sectionality

Assessment Details

The students have to mandatorily maintain 75% attendance. After that, they will be allowed to sit in the final examination. The examination will carry 100 marks. It will be a 3 hours exam. The examination paper will consist of both objective and subjective questions.

References:

- John Mary, Women's Studies in India: A Reader, New Delhi: Penguin, 2008.
- Geetha V., Patriarchy, Kolkata, Stree, 2008.
- Geetha V., Gender, Kolkata, Stree, 2002.
- Chakravarty U. Gendering Caste, Kolkata, Stree, 2006.
- Vaid S and K. Sangari, Recasting Women, New Delhi, Kali for Women, 1989.
- Butalia, U. and T Sarkar, (eds.), Women and the Hindu Right, New Delhi, Kali for women, 1996.
- Cosman, B. and R. Kapur (eds.), Subversive Sites, New Delhi, Sage, 1996.
- Sunder Rajan, R., The Scandal of the State: Women, Law and Citizenship in Postcolonial India, New Delhi, Permanent Black, 2004.
- Chadhuri, Maitreyee, Feminism in India, New Delhi, Women Unlimited, 2003
- Menon Nivedita (Ed.), 2007, Sexualities, New Delhi: Women





**IQAC of College of Commerce, Arts
and Science, Patna
*Organizes German Language
Programme (Online Mode)***


Timing- 09:00 AM to 10:00 AM

Register yourself with the given link:

<https://www.cocaspatna.ac.in/>

Contact Person:

Dr. Akanksha Priya
Assistant Professor
Department of Botany
COCAS, Patna


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Learn German Language for Beginners

A1
Course

TRAINING OVERVIEW

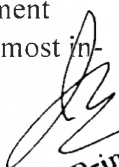
- German language Training (Online mode) gives you the opportunity to sharpen your language skills. The focus is on widening and consolidating vocabulary as well as developing and practicing listening and reading skills. Writing skills are practiced using fill-in-the-blanks exercises. Speaking skills are not a focus of this training.
- German Training Online is divided into chapters, which tackles different everyday situations and current topics. The necessary grammatical knowledge and relevant vocabulary is provided in each chapter.
- Should you encounter any difficulties or have questions, helpful answers can be found in clear, understandable info boxes.
- Important overviews of different topics are available as printable downloads as a useful supplement for your personal files.
- You learn and are able to practice your language skills using many different types of exercises; for example, using pictures, audios and videos as well as reading and fill-in-the-blanks texts. Access with Abundant Tools and Techniques, video content, assessments, and more. The general format and exercises are based on those used in the Goethe-Institute exams. However, if you are preparing for a particular exam, we recommend you to enroll yourself in one of our specific exam preparation courses.

LEARNING BENEFITS:

1. Initiate Conversation about Present, future, and past events
2. Explain Habitual action and talk about the memories
3. Describe Feelings and express present and future wishes
4. Learn the basics of Sentence and Word building
5. Express Opinion and argue with people
6. Talk and describe Past events and express Doubts & Probability
7. Make Hypothesis about the past events and explain them
8. Learn extensively about the Advanced German Language Grammar

CAREER BENEFITS:

1. Exposure to Millions of Jobs Globally in the Arena of German Language Course
2. Be Highly Paid as a Freelancer or as a full-time Professional after the Successful completion of German Language Training Course
3. Improve your CV & LinkedIn Profile with Technical & Professional development
4. Distinguish your Profile from peers and get Promoted in Current Profile with most in-demand Skills


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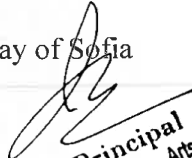
5. Distinguish your profile with the Course Completion Certification of German Language Training Course
6. Better Job Security with exceptional growth opportunities
7. Improve your employment chances in Germany, Switzerland, Austria, and EU Countries
8. Get hired as a Translator for an Indian Government Organization, MNCs, NGOs

GERMAN A1 COURSE CONTENT


Sl. no	Chapter Name	Topics Covered
1	Guten Tag! (Good Day, Good Afternoon)	<ul style="list-style-type: none"> • Learning Alphabets and Numbers: One to Ten • W-Questions and Self-Introduction • Learning Personal Pronouns and auxiliary verbs • Talking about Countries and other languages • Learning a few verbs like: Come, speak, etc. • Greetings and say bye • Learning German language words and same words in other languages • Learn verb Conjugation
2	Freunde, Kollegen und ich (Friends, Colleagues and Me)	<ul style="list-style-type: none"> • Talking About Hobbies • Verb Conjugation like auxiliary verbs, regular and irregular verbs • Learning articles • Yes or No questions • Understand plural article • Learning Number from 20 • Talking about Work and Professions • Learning Days and Months • Learning personal information • Creating Simple sentence like: What do you like, I like dance, I like singing, etc.
3	In der Stadt (In the City)	<ul style="list-style-type: none"> • Imperative sentences with "you" • Irregular Verbs • Definite and Indefinite article with gender • Talking about Places and building names in Germany • Listening audio • discussion with the taxi driver


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		<ul style="list-style-type: none"> • Asking simple questions using what, that etc. • Explaining the way to an unknown person • Talking about Events • Learning Articles Rules
4	Guten Appetit! (Enjoy the Meal)	<ul style="list-style-type: none"> • Verb Conjugation with Irregular and Modal Verbs • Verb Position in Sentence • Accusative Articles • Accusative Verbs • Talking about food and eating • The vocabulary of food, vegetables, drinks, etc. • Listening Audio • Discussion about breakfast, lunch, and dinner • send the invitation to a party • Purchasing things in the supermarket • Talking about food places and profession
5	Tag für Tag (Day for day)	<ul style="list-style-type: none"> • Learning Time-related Prepositions • Learning Possessive Articles like Mine, your, his, etc. • Learning Modal verb conjugation with Personal Pronoun • Modal verb position in sentence • Talking about time and time-related conversation • Small conversation day-to-day routine • Listening audio • Sending Mail using modal verbs • Talking about the web page and discussing photos • Listening to audio about appointments with doctor • Listening to audio and discussing talking about family day-to-day routine
6	Zeit mit Freunden (Time with Friends)	<ul style="list-style-type: none"> • Learning Separable Verbs • Learning past tense with be and have verbs • Personal Pronouns in Accusative • Accusative Propositions • Talking about the ordinal numbers “on” and “When” like First, Second, etc.. • Birthday celebration • Discussing on surprising birthday of Sofia


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		<ul style="list-style-type: none"> • Discussing in the hotel • Free time program in Germany
7	Kontakte (Contact)	<ul style="list-style-type: none"> • Learning Dative Prepositions • Short form of articles • Possessive article in Accusative • Brief Discussion on finding an office with an audio • Discussion on the first day in the office with audio • Studying a letter format • Discussion about Social media in Germany • Self-introduction in the workshop and talking about another thing
8	Meine Wohnung (My Apartment)	<ul style="list-style-type: none"> • Learning adjectives with “be” verbs and “very/too” • Changing prepositions with accusative and Dative • Learning colors vocabulary • Talking about apartment and vocabulary • Searching apartments and collecting information about apartments from other sources • Talking about the new apartment with audio • Kind of building name and discuss
9	Alles Arbeit? (All is Work?)	<ul style="list-style-type: none"> • Learning Past Perfect tense with auxiliary verbs • Learning Partizip II with regular and irregular verbs • Learning connecting words and sentences with and, but, and or • Talking and explaining about work • Searching jobs through various media like advertisement, paper, etc. • A telephone conversation through audio • Talking about jobs around the place
10	Kleidung und Mode (Cloths and Fashion)	<ul style="list-style-type: none"> • Learning Interrogative article and creating sentences with word “Which” • Understanding Demonstrative article with “this” word • Learning Dative verbs • Learning Personal pronouns with Dative case


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		<ul style="list-style-type: none"> • Partizip II with Separable and non-separable verbs • Talking about clothes and fashion • A conversation about purchasing clothes in various "Cloth sales centers" • Conversation on cloth exchanging • Learning cloth-related vocabulary • Discussing some popular and old shopping centres in Germany
11	Gesund und munter (Healthy and Cheerful)	<ul style="list-style-type: none"> • Imperative Sentences with "You" • Learning modal verbs like Must and should • Talking about health and healthy food • Talking about fitness • Learning vocabularies of the body • Discussing sports exercises and sport related words • Talking about the accident and listening to the audio • Conversation with doctor • Discussing about Home Remedies • Understand health-related professions, tips, etc.
12	Ab in den Urlaub! (In the Vacation)	<ul style="list-style-type: none"> • Learning Pronouns with "one" • Learning W-Questions • Learning time adverbs like: first, then, later etc. • Talking about vacation and vacation-related vocabulary • Discussion about city travel • Conversation in Hotel room • Complaining in Hotel

Terms and conditions of certification

All those candidates who have 90% attendance will be allowed to appear for the final written examination of the course. Certificate of completion will be awarded to only those students who fulfill the above said attendance criteria along with their performance in the written examination.


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Department of Economics
College of Commerce, Arts & Science, Patna

Certificate Programme on
Fundamentals of Environmental Economics

Course Name: Fundamentals of Environmental Economics

Course Co-Ordinator: Dr Baikunth Roy

Assistant Professor, Department of Economics
College of Commerce, Arts & Science, Patna


Eligibility & Schedule of the Course

Potential Participants:	10+2 or its equivalent
Duration:	Three Months (12 weeks) Three classes per week tentatively
Number of Hours:	36 Hours
Mode of Learning:	Hybrid Mode (Online+Offline)
No of Students:	120

Medium of Instruction of the Course: English & Hindi

Broad Outline of the Program

- Economics and environment
- Welfare and markets
- Environmental protection
- Environmental regulations


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- Environmental market behaviour

Aim of the Program

Explore the critical intersection of economics and environmental sustainability with our Environmental Economics Course in the Hybrid Mode. This comprehensive program equips you with the knowledge and tools to analyze environmental issues from an economic perspective, empowering you to contribute to a more sustainable and ecologically responsible future. In this engaging online course, you will delve into the principles, theories, and practical applications of environmental economics, addressing complex challenges facing our planet.

Expected Course Outcomes:

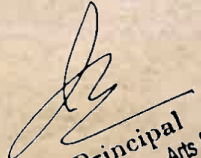
On the successful completion of this course, the students will be able to:-

1. Discuss the environmental issues in relation to the theory of externalities, public goods, and welfare.
2. Illustrate and examine economic principles concerning the choice of instruments for controlling pollution and the relative strength and weaknesses of environmental policies based on command-and-control vis-à-vis market-based instruments.
3. Discuss various approaches and methods developed for valuing environmental goods and services.
4. Examine issues in the contemporary environmental discourse from an economists' point of view.

Course Layout

Week – 1

1. Fundamental concept of environmental economics
2. Meaning and subject matter of environmental economics
3. Nature and scope of environmental economics


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4.Key environmental issues and problems

Week – 2

5.Market failure and externalities

6.Pigouvian taxes and subsidies

7.Pareto efficiency / optimality

8.Property rights and Coase theorem

Week – 3

9. WTO and Environmental issues

10.Environmental Kuznets- Hypothesis

11.Approaches to the allocation of public goods and Tradable permits

12.Environmental quality: AIR, WATER, FOREST, LAND

Week – 4

13.non-market values and measurement methods

14.Sustainable policy approach to check environmental degradation


15.Cost benefit analysis of environmental regulations

Week – 5

16.Economics of Recycling and waste management

17.Sustainable development rules and principles

18.Green marketing and clean technology


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Week – 6

- 19. Poverty and environment
- 20. Land degradation and environment
- 21. Bio-Diversity conservation and environment

Week – 7

- 22. Integrated environmental and economic accounting
- 23. Role of information in the health of the Environment
- 24. Policy instruments for environmental protection

Week – 8


- 25. Environmental laws in India
- 26. Economic approach and ecological approach
- 27. India's Environmental Policy and Legislation

Week – 9

- 28. International environmental policy
- 29. Environmental Risk Analysis
- 30. Environmental pollution and policies

Week – 10

- 31. Air pollution and climate change
- 32. Pollution of water resources and their management
- 33. Deforestation and extinct of bio-diversity


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34. Economics of climate change

Week – 11

35. Inter linkages between environment and e-governance

36. Waste (e- waste) management and environmental issues

Week – 12

37. Population, human health, and environment linkages

38. Agro-Economics and Environmental Science


Assessment Details

The students have to mandatorily maintain 75% attendance. After that, they will be allowed to sit in the final examination. The examination will carry 100 marks. It will be a 3 hours exam. The examination paper will consist of both objective and subjective questions.

The end-semester examination would examine the students for their understanding of methods and approaches taught and their application to the range of environmental issues. The underlying emphasis would be on developing the attitude of independent thinking on contemporary environmental issues and critical evaluation of public policy for addressing environmental problems.

Books and references


1. J.P. Sharma, 2011. Environmental Studies. University Science Press.
2. P.D. Sharma, 2009. Ecology and Environment. Rastogi Publications.
3. Masters, Gilbert M, 2008. Introduction to Environmental Engineering and Science. PHI publication.


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4. Asthana D. K., Meera Asthana, 2019. A Textbook of Environmental Studies. S Chand & Co Ltd.

5. Shashi Motilal, Bijayalaxmi Nanda, 2006. Human Rights, Gender, and Environment Allied Publishers

6. Rajagopalan R, 2015. Environmental Studies. OUP India


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32 Hours Programme on Certificate Course in Web Design

About the course:

The course is designed to give some idea to beginner and intermediate students about basic web designing. This comprehensive, easy-to-understand course will teach learners the fundamentals of web develop and techniques. This course will provide full understanding of key concepts that are commonly used in web pages, including the meaning of inheritance, cascade, pseudo classes elements and selectors. The course then guides you through the use of font, background styles and style sheets.

Duration: 32 hours

Highlights of the Course:

- ❖ Industry centric curriculum with job-oriented training.
- ❖ Hands on practical training with latest software
- ❖ Experienced Faculty

Course Coordinator:

Anita Sagar

Assistant Professor

Department of Physics


College of Commerce, Arts & Science

A Constituent Unit of Patliputra University, Patna

Objectives –

The student will be able to

1. Define the principle of Web page design
2. Define the basics in web design
3. Visualize the basic concept of HTML.
4. Recognize the elements of HTML.
5. Introduce basics concept of CSS.
6. Develop the concept of web publishing


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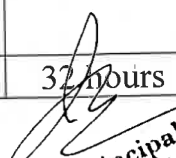
Course outcomes:

Upon completion students will be able to:

1. Select and apply markup languages for processing, identifying, and presenting of information in web pages.
2. Use scripting languages and web services to transfer data and add interactive components to web pages.
3. Create and manipulate web media objects using editing software

Course Content:

Module	Course Content	Duration
1.	Web Design Principles 1.1 Basic principles involved in developing a web site 1.2 Planning process 1.3 Five Golden rules of web designing 1.4 Designing navigation bar 1.5 Page design 1.6 Home Page Layout 1.7 Design Concept.	3 hours
2.	Basics in Web Design 2.1 Brief History of Internet 2.2 What is World Wide Web 2.3 Why create a web site 2.4 Web Standards 2.5 Audience requirement.	7 hours
3.	Introduction to HTML 3.1 What is HTML 3.2 HTML Documents 3.3 Basic structure of an HTML document 3.4 Creating an HTML document 3.5 Mark up Tags 3.6 Heading-Paragraphs 3.7 Line Breaks 3.8 HTML Tags.	9 hours
4.	Elements of HTML 4.1 Introduction to elements of HTML 4.2 Working with Text 4.3 Working with Lists, Tables and Frames 4.4 Working with Hyperlinks, Images and Multimedia 4.5 Working with Forms and controls.	6 hours
5.	Introduction to Cascading Style Sheets 5.1 Concept of CSS 5.2 Creating Style Sheet 5.3 CSS Properties 5.4 CSS Styling(Background, Text Format, Controlling Fonts) 5.5 Working with block elements and objects 5.6 Working with Lists and Tables 5.7 CSS Id and Class 5.8 Box Model(Introduction, Border properties, Padding Properties, Margin properties) 5.9 CSS Advanced(Grouping, Dimension, Display, Positioning, Floating, Align,Pseudo class, Navigation Bar, Image Sprites, Attribute sector) 5.10 CSS Color 5.11 Creating page Layout and Site Designs.	5 hours
6.	Introduction to Web Publishing or Hosting 6.1 Creating the Web Site 6.2 Saving the site 6.3 Working on the web site 6.4 Creating web site structure 6.5 Creating Titles for web pages 6.6 Themes-Publishing web sites.	2 hours
Total Duration		32 hours



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Class Mode: Classes shall be offered both through offline and online modes. 3 classes per week of around 1 hour to 1.5 hours per class shall be conducted on weekly basis. Weekend class schedules or after-regular college hours class schedules may also be offered for the convenience of students already pursuing degree courses subject to availability of batches.

Probable timing July 2020.

(Time will be decided by the co-ordinator).

Students are requested to contact Department of Physics, COCAS, Patna for the details of the admission procedure.


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College of Commerce, Arts & Science

(A constituent Unit of Patliputra University, Patna)

NAAC Re- Accredited With Grade-A CGPA of 3.10/4



Online Interdisciplinary Research Methodology Course

ADVANCED
RESEARCH
METHODOLOGY

First Batch	10 th to 24 th January, 2021
Second Batch	1 st to 15 th March, 2021
Third Batch	2 nd to 16 th May, 2021

Call for Registration & Participation

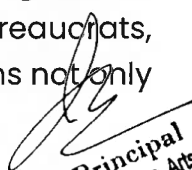
Time: 3:00 P.M. to 5:00 P.M


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About the College:

College of Commerce, Arts & science, Patna, established in 1949, recognized under Sections 2 (f) and 12 (B) of the UGC Act 1956 is a premier constituent College of Patliputra University. College was established by great visionary Late Pt. Indu Shekhar Jha on the advice of Dr. Rajendra Prasad with a pious motive to make quality education accessible for aspiring youths without any discrimination based on socio-cultural-economic grounds. The vision of its great founder Pt. Indushekar Jha was to make the commerce education accessible to the underprivileged and subaltern students of Bihar, which was rarely available. This revered institution started its journey from a small campus where P. N. Anglo School is located now to its present campus. Flowing in the incessant flow of imparting knowledge and being exposed to the warmth of time, this institution went on incorporating many streams in itself and today in this college education is imparted in the faculties of Sciences, Social Sciences, Commerce, Humanities and Law up to postgraduate levels. It is one of the oldest academic institutions located in the heart of the capital of Bihar, Patna. The College is situated in the exclusive neighbourhood of Rajendra Nagar Railway Terminal and inhabits a 5.89-acre plot campus. The lush green landscape invites an aesthetic charmer and enhances the College atmosphere to an educational eden.

Initially, it was a constituent unit of Magadh University in the name of College of Commerce and was renamed as College of Commerce, Arts & Science in 2016. Later, it became a constituent unit of the Patliputra University, Patna when this university was formed by the Bihar Government on 18 July 2018 after being bifurcated from Magadh University, Bodh Gaya. The College was re-accredited by NAAC as Grade 'A' in its second cycle of accreditation with a CGPA of 3.10 on a four-point scale. After the journey of more than seven decades this institution has achieved its mission and vision to a greater extent for which it was established and it is a matter of great satisfaction that today this institution is acclaimed throughout the state of Bihar for its high academic standards. The College has consistently demonstrated outstanding performance in academics, sports, and Co/extra-curricular activities. It has made significant and unparalleled contributions in terms of producing scholars, bureaucrats, intellectuals, politicians and sportsperson serving in different domains not only


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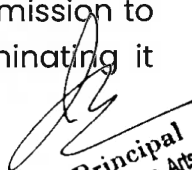
in our own country but even at international levels. Vibrant and effective presence of our alumni all over the world at key positions in almost all spheres of life is a testimony of its successful journey.

College of Commerce, Arts and Science is opportune to have a galaxy of faculties who command a rare distinction in academic excellence at least in Bihar and whose accomplishments in academia is appreciated universally. The college dare claims to set new yardsticks in Bihar as far as quality research and teaching is concerned. Despite certain limitations which are beyond the college domain like space constraints, proper playground, etc., our students have excelled in various sports streams at different levels. No matter whether it is NCC or NSS or any other wing, this college has proven its worth.

This college has excellent infrastructure with automated central library linked to world-wide free information flows and databases, well equipped laboratories and congenial and natural campus ambience and classrooms. However, the volume of publication in peer reviewed journals with high impact factor and citation index is moderate but the quality of research is worth citing. College administration is trying its best to catch it soon and increase the volume of research too. Teaching and research in all faculties of Sciences, Social Sciences, Humanities, Commerce and Law are available up to PG level. Ph. D. Programmes are also available in most subjects. The college offers 13 postgraduate, 17 undergraduate, 07 vocational, 03 Add-on (with certificate, diploma and advance diploma) and 04 professional/self-financed courses. The college aspires to commensurate to the national and global standards in teaching as well as in research.

Our institution visions to develop an educational set up to bring out a transformative change in the society by nurturing high moral and spiritual values in students, giving quality education in multiple disciplines, empowering the society through knowledge and quality research and fostering creativity and entrepreneurship in students and in this way making students a capable global citizen.

All the stakeholders are working hard with full commitment with a mission to develop and maintain a human repository of knowledge, disseminating it

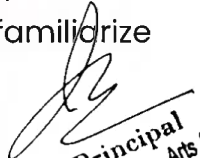

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among the students and creating new and relevant insights in diverse disciplines through state-of-the-art research. The college retains inspiring facets of its proud history and with an equally sharp gaze, it looks ahead to assimilate the exciting world of new knowledge as they go on unfolding. Our esteemed institution aims to inculcate positive human values in its students and making them capable global citizens, sensitive to human and environmental issues and at the same time quality professionals in their respective fields.



Concept Note

The goal of this Advanced Research Methodology course is to examine various research dimensions and paradigms. The modules aim to improve the participants' capacity for independent research in a planned manner, identify pertinent and significant literature reviews, create questionnaires, gather and analyze data, run simulations, and help them write research papers for high-impact factor journals. The primary tools discussed are those that would help a researcher conduct a systematic review of the literature, visualize data, and effectively communicate findings, write a research paper, prepare reports and theses, and guard against plagiarism. The course also seeks to familiarize


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participants with a variety of software programs and to make it easier for them to use such programs in their research and teaching endeavours.

Thematics: (30 hours Course Module) (03:00 to 05:00 P.M.)

1. Introduction to Research: Research Philosophy & Types
2. Research Design and Types
3. Data collection and Data Visualization
4. Analysis of Data and Techniques
5. Systematic Literature Review and Meta Data Analysis
6. Introduction to different Qualitative Research Methods
7. Developing an understanding about Qualitative and Quantitative Data Analysis
8. Writing Research Report and Research Papers using LaTeX
9. Advanced Searching Tools and Referencing Tools
10. Scientific Journal Finder
11. Indexing and Impact Factors
12. Publication Ethics: Patent, Copyright and Plagiarism

Objective of the Course:

1. Understand the basic concepts of research and its methodologies
2. Identify appropriate research topics
3. Select and define appropriate research problem and parameters
4. Will able to give research legitimacy and provides scientifically sound findings.
5. Enable students to prepare report writing and framing research proposals.

Expected Learning Outcomes

After successful completion of the online course, the participants will able to:

1. Gain better understanding on how to identify a research problem and design a valid research project to answer specific research questions
2. Get hands-on training in the usage of several opensource tools that can assist them in their research endeavours.
3. Write effective research papers and thesis in the journal designated formats using online tools.


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4. Know the process of finding good quality journals for research and publishing

Registration Details

Eligibility

Research scholars and postgraduate students are eligible to apply for this programme. All those who meet the eligibility criterion are required to register by visiting <https://www.cocaspatna.ac.in>

Registration: Compulsory registration is required to participate in the course.


After successful registration, the participants will receive a confirmation via email. Please keep checking the spam folder of the email as the bulk email sent may end up in the spam folder. An official group has been made for communication with the participants on "Telegram." You are therefore requested to install the Telegram App either from the Play Store or App Store. The link to join the official group will be provided in the confirmation mail.

Important Note:

Attempting and submitting all the quizzes and assignments is mandatory, and each participant should score at least 50% aggregate to be eligible for the completion certificate. Registration is mandatory for participation. Graded certificates on the basis of performance will be awarded to the participants.

For Further Communication, Write to us at:

ranjanarashmi208@gmail.com


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ORGANISING BOARD OF THE COURSE

PATRON

Prof. Tapan Kumar Shandilya

PROGRAMME CONVENORS

Dr. Rashmi Ranjana, Assistant Professor, Department of Geography

Ranjana
DR. RASHMI RANJANA

ORGANIZING COMMITTEE MEMBERS

Dr. Abhay Shankar, Department of Geography

Dr. Santwana Rani, Associate Professor, Department of Botany

[Signature]
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Department of Economics

College of Commerce, Arts & Science, Patna

A Three- Months Certificate Programme

Students will get a chance to pursue value added course along with the subjects that they have opted for with an objective to increase their learning output.

Course Name: Fundamentals of Disaster Management

Course Co-Ordinator: Prof (Dr) Rashmi Akhoury

Department of Economics, College of Commerce, Arts & Science, Patna-20

Course Description

Potential Participants: 10+2 or its equivalent

Duration: Three Months (12 weeks)

Three classes per week tentatively

Number of Hours: 36 Hours

Mode of Learning: Hybrid: (Online+Offline)

No of Students: 150

Medium of Instruction of the Course: English & Hindi

Fundamentals of Disaster Management intends to familiarise the learners with the meaning, factors, significance, causes and effects of disasters.

This Course deals specifically with essentials of disaster preparedness and focuses on techniques for effective community participation, besides highlighting ways to collect relevant information pertaining to disasters and also its effective dissemination.

Learning Objectives

The course is intended to provide a general concept in the dimensions of disasters caused by nature beyond the human control as well as the disasters and environmental hazards induced by human activities with emphasis on disaster preparedness, response and recovery.

Learning Outcomes

After completing a Certificate in Disaster Management [CDM] course, professionals may get opportunities to work in government sectors with emergency services, law enforcement department, relief groups, and local authorities. Professionals may work in various positions and roles offered by the top organizations like assistants, trainees, experts, analysts, researchers, environmental experts, engineers, medical health experts, rehabilitation workers etc.

Course Outline

Unit: I

Definition and types of disaster Hazards and Disasters, Risk and Vulnerability in Disasters, Natural and Man-made disasters, earthquakes, floods drought, landside, land subsidence, cyclones, volcanoes, tsunamis, avalanches, global climate extremes. Man-made disasters: Terrorism, gas and radiations leaks, toxic waste disposal, oil spills, forest fires.

Unit: II

Study of Important disasters Earthquakes and its types, magnitude and intensity, seismic zones of India, major fault systems of India plate, flood types and its management, drought types and its management, landside, and its managements case studies of disasters in Sikkim (e.g) Earthquakes, Landside). Social Economics and Environmental impact of disasters.

Unit: III

Mitigation and Management techniques of Disaster Basic principles of disasters management, Disaster Management cycle, Disaster management policy, National and State Bodies for Disaster Management, Early Warning Systems, building design and construction in highly seismic zones, retrofitting of buildings.

Unit IV

Training, awareness program and project on disaster management Training and drills for disaster preparedness, Awareness generation program, Usages of GIS and Remote sensing techniques in disaster management, Mini project on disaster risk assessment and preparedness for disasters with reference to disasters in Sikkim and its surrounding areas.

Assessment Details

The students have to mandatorily maintain 75% attendance. After that, they will be allowed to sit in the final examination. The examination will carry 100 marks. It will be a 3 hours exam. The examination paper will consist of both objective and subjective questions.


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References and Text Books:

1. Disaster Management Guidelines, GOI-UND Disaster Risk Program (2009-2012)
2. Damon, P. Copola, (2006) Introduction to International Disaster Management, Butterworth Heineman.
3. Gupta A.K., Niar S.S and Chatterjee S. (2013) Disaster management and Risk Reduction, Role of Environmental Knowledge, Narosa Publishing House, Delhi.
4. Murthy D.B.N. (2012) Disaster Management, Deep and Deep Publication PVT Ltd New Delhi.
5. Modh S. (2010) Managing Natural Disasters, Mac Millan publishers India LTD.

Department of Economics
College of Commerce, Arts & Science, Patna

Three- Months Certificate Course

Students will get a chance to pursue value added course along with the subjects that they have opted for with an objective to increase their learning output.


Course Name: Foundations of Gender Studies

Course Co-Ordinator: Prof (Dr) Rashmi Akhoury

Department of Economics, College of Commerce, Arts & Science, Patna-20

Course Description

Potential Participants:	10+2 or its equivalent
Duration:	Three Months (12 weeks) Three classes per week tentatively
Number of Hours:	36 Hours
Mode of Learning: Hybrid:	(Online+Offline)
No of Students:	150
Medium of Instruction of the Course:	English & Hindi


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Course Objectives:

This Course seeks to build gender studies perspective to knowledge production.

Key Objectives:

This Course seeks to

1. Introduce participants to the field of women's/ gender studies and critical debates in it in India
2. Build gender studies perspective to knowledge production.
3. Introduce students to writing research/ field report
4. To develop gender sensitive pedagogy and knowledge system
5. To introduce epistemological and ontological aspects of gender studies to academicians coming from different streams of knowledge in a structured manner.

Learning Outcomes

A gender bias free teaching –learning process can be instrumental in bringing about positive social change towards an egalitarian society. A faculty member who values practices and espouses gender equity would inspire his/her students to make their career decisions in an unbiased and confident manner leading to judicious presence of males and females in all areas of study and profession. This course will provide academic perspectives and inputs to policy makers whereby they will be able to address the problems of gender bias in the society through enabling policy making and legislation.

Course Outline

The Course is broadly categorized into ten themes and designed to span forty modules. These modules deal with the concepts, theories, research methodologies, movements, programmes and policies related to the gender studies.

Unit-1

Constructing Gender - Introduction to women's/ gender studies - What is women's studies? Emergence and growth of women's/ gender studies in India, engendering of disciplines and disciplining of gender.

- Core Concepts of Gender/Evolution in Gender Studies

- Patriarchy: Power, Structure and Practices
- Masculinity/Femininity: An Overview

Unit 2

Constructing Gender & Inter-sectionality/Gender Mainstreaming: Theoretical Issues and Debates

- Understanding Sexuality: Conceptual Underpinnings
- Inclusion, Exclusion, Discrimination: Caste, Class, Ethnicity
- Waves of Feminism/Gender Theories

Unit 3

Inter-sectionality/Gender Mainstreaming: Theoretical Issues and Debates & Women in History

- Political Ideologies & Women- Liberal, Radical Socialist and Communist
- Gender Equity and State Policy for Gender Mainstreaming
- Gender Historiography (Representation of Women in History)

Unit 4

Women in History & Women's Struggle and Movements: Evolution and Key Debates

- Status of Women in Ancient, Medieval and Modern India
- Social Reform Movements in India (pre- and post-independence)
- Women's Movement in a Global Perspective (e.g., National Liberation movements, suffragette movement)

Unit 5

Women's Struggle and Movements: Evolution and Key Debates

- Women's Struggle and Movement in India: A Historical Perspective- 19th Century to date
- Beijing Declaration/ UN Documentations – Platform for Action (PFA)
- Case Studies (AFSPA, Women Refugees etc - in context of Human Security) (Domestic Law superseding International Convention)

Unit 6

Women's Struggle and Movements: Evolution and Key Debates & Major Initiatives and Interventions towards Women's Empowerment: Trends and Emerging Issues- Migrant and Refugee women

- Role of Non-Formal Politics/ Civil Society Movements
- Interventions towards empowerment- MDGs, SDGs, CEDAW (Global)
- Case Studies in Indian Context (MDGs, SDGs, CEDAW etc.)

Unit 7

Major Initiatives and Interventions towards Women's Empowerment: Trends and Emerging Issues- Migrant and Refugee women & Gender Equality and Women's Protection: Law and Legislation in India

- Feminization of Migration
- Refugee Women and Displacement for Development
- Indian Constitution & Status of Women (Roots of Violence, Social-Economic and Political Factors/ Power and Patriarchy)

Unit 8

Gender Equality and Women's Protection: Law and Legislation in India

- Amendments 73,74 (Empowerment of Women in Local/ Rural and Urban Government Acts: Domestic Violence, Prevention of Sexual Harassment/Vishaka Guidelines (History of Sexual Harassment at Workplace Laws/Acts)
- Uniform Civil Code/Personal Laws & Gender Justice
- Section 377 and the Supreme Court Judgement: Decriminalising Sexuality

Unit 9

Indian State and Public Policy: Processes and Outcomes

- Political Participation of Women
- Self Help Groups & Micro-economic Programs: Socio-economic and Political aspects
- Education Policy in India: Analyzing Outcomes and Challenges

Unit 10

Indian State and Public Policy: Processes and Outcomes & Women in Science, Technology & Sustainable Development

- Dealing with Disability- State policy and its Implementation
- Health Policies in India: A critical review (Rights of Women regarding their bodies (Surrogacy – Reproductive Health, etc)
- Globalization and Impact of Economic policy on Women (Major approaches: WID, WAD, GAD/ UN/ILO and Indian initiatives)

Unit 11

Women in Science, Technology & Sustainable Development

- Labour Work Participation/Labour Laws and Wage disparity (Leadership and employment (Managerial – Private and Public sector)
- Eco-Feminism (Forest Rights Act)
- Women in Science – ICT, STEM professional

Unit 12

Arts, Literature and Media: Gender & Representation

- Gender in Performing Arts
- Literature and Gender
- Women in/ and the Media

Unit 13:

Arts, Literature and Media: Gender & Representation & Feminist Research Methodology

- Women in a Digital World
- Feminist Methods in Social Science Research
- Invisibility of data and alternative research Paradigms

UNIT 14

Research on Gender Mainstreaming / inter-sectionality

Assessment Details

The students have to mandatorily maintain 75% attendance. After that, they will be allowed to sit in the final examination. The examination will carry 100 marks. It will be a 3 hours exam. The examination paper will consist of both objective and subjective questions.

References:

- John Mary, Women's Studies in India: A Reader, New Delhi: Penguin, 2008.
- Geetha V., Patriarchy, Kolkata, Stree, 2008.
- Geetha V., Gender, Kolkata, Stree, 2002.
- Chakravarty U. Gendering Caste, Kolkata, Stree, 2006.
- Vaid S and K. Sangari, Recasting Women, New Delhi, Kali for Women, 1989.
- Butalia, U. and T Sarkar, (eds.), Women and the Hindu Right, New Delhi, Kali for women, 1996.
- Cosman, B. and R. Kapur (eds.), Subversive Sites, New Delhi, Sage, 1996.
- Sunder Rajan, R., The Scandal of the State: Women, Law and Citizenship in Postcolonial India, New Delhi, Permanent Black, 2004.
- Chadha, Maitreyee, Feminism in India, New Delhi, Women Unlimited, 2003
- Menon Nivedita (Ed.), 2007, Sexualities, New Delhi: Women

Course: Vedic Mathematics

Duration: 30 hours

Course Objectives:

The main objectives of the course are

- Enhance calculation speed and numerical skills through Vedic Mathematics
- Develop logical and analytical thinking
- Sharpens the brain
- Crack entrance exams and get scholarship
- Provides an insight into ancient Indian mathematics

Course Syllabus:

Unit-I: Introduction to Vedic Mathematics, Vedic Maths Formulae-Sutras and sub-Sutras, Concept of Base and Compliments, Vedic methods of Addition, Addition without Carry Forward. [5 hours]

Unit-II: Vedic methods of Subtraction (all from 9 last from 10), Subtraction from numbers like 100, 1000, 10000..., Decimal numbers subtraction. [5 hours]

Unit-III: Magical Multiplication with 11-19, General multiplication- 2×2 , 3×2 , 4×2 , 3×3 , Magical Multiplication, Base Value Multiplication (Nikhilam Method). [8 hours]

Unit-IV: Sutra for finding Square of a number, Square of any two digits numbers- Base methods, Square of numbers ending with 5, Square root, Cubing (Yavadunam Sutra). [4 hours]

Unit-V: Magical Calander for year 2020, Magical Calander Concept (2001-2020), Concept of 100 Years Calanders. [8 hours]

Suggested Readings:

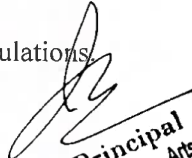
1. Sumita Bose -2017 "Vedic Mathematics"- V&S Publishers, New Delhi.
2. H.K. Gupta -2014 "Vedic Mathematics"- BPI Publishers, New Delhi
3. Vedic Mathematics Made Easy, Dahawal Bhatia, Jaico Publication, New Delhi, 2011.

Course Outcomes:

At the end of the course the students will be able to:

- do faster calculation as compared to the traditional method.
- utilize Vedic sutras to enhance their skills for competitive examinations and able to solve question quickly in competitive examinations.
- provides an easy and convenient solution to difficult mathematics problems and calculations.
- enhance mental concentration.

Asim


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Internal Quality Assurance Cell
Organizing a Certificate Course in

“Personality Development”

Patron

Prof. Tapan Kumar Shandilya

Principal

IQAC Co-ordinator


Dr. Santosh Kumar

Associate Professor

Course Co-ordinator

Dr. Vandana Maurya

Assistant Professor


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Course Description:


Every individual possesses a unique set of traits and characteristics, which remains stable overtime. This uniqueness and consistency forms the aspects of personality. It is the stability of these characteristics that sometimes assist in predicting behaviour of a given person. There are many factors like biological characteristics, family and social groups, cultural and social factor, which contributes towards the formation of personality. An individual can be manifested in various forms like authoritarian personality, bureaucratic personality, and Machiavellian personality, etc. There are many theories that are developed in predicting the behaviour of an individual on the basis of various attributes. Some tests are also designed to assess the personality of an individual. On the other hand, good communication is vital to any institution's successful operation and equally imperative for a man's personality development. Therefore, combined with the convincing evidence that most organizational communication is inadequate, leads to yet another conclusion: that communication is an area that deserves further study by those concerned with improving organizational operations. Two-way communication is more effective than one-way communication. The feedback allows the sender to refine his communication so that it becomes more precise and accurate. Receivers' self-confidence is higher in case of two-way communication as they are permitted to ask questions and seek clarification from the senders. Hence, in this course, the theories and practices would be deliberated.

Duration:

45-hour course (2 hours each session, six days a week).

Objectives:

1. Exposing participants to the fundamentals of personality development and communication skills practices.
2. Building in confidence and capability amongst the participants with regard to personality development and communication skills.
3. Providing exposure to practical problems and their solutions, through case studies and live projects in personality development process and communication skills.



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4. Enhancing the capability of the participants to identify, control and improve personality development indicators and enhanced communication skill.

Course outcomes:

- Understanding the origin and development of personality.
- Managing better physical and mental health.
- Learn to manage optimal performance.
- Learn to manage work-life Balance.
- Better relationships with family and friends and soft skills utilization.
- Learning self-care through lifestyle changes.
- Acquiring life skills and preparing for a better future by reducing the stress.

Certification:

Upon successful completion of this course, participants will be issued with a certificate.

Course Content:

UNIT I Introduction to Personality Development

The concept of personality - Dimensions of personality – Theories of Freud & Erickson- Significance of personality development. The concept of success and failure: What is success? - Hurdles in achieving success - Overcoming hurdles - Factors responsible for success – What is failure - Causes of failure: SWOT analysis.

UNIT II Attitude & Motivation

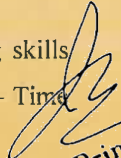
Attitude - Concept - Significance - Factors affecting attitudes - Positive attitude – Advantages –Negative attitude- Disadvantages - Ways to develop positive attitude - Differences between personalities having positive and negative attitude. Concept of motivation - Significance – Internal and external motives - Importance of self- motivation- Factors leading to de-motivation

UNIT III Self-esteem

Term self-esteem - Symptoms - Advantages - Do's and Don'ts to develop positive self-esteem – Low self- esteem - Symptoms - Personality having low self-esteem - Positive and negative self-esteem. Interpersonal Relationships – Defining the difference between aggressive, submissive and assertive behaviours - Lateral thinking.

UNIT IV Other Aspects of Personality Development

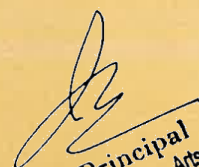
Body language - Problem-solving - Conflict and Stress Management - Decision-making skills - Leadership and qualities of a successful leader – Character building -Team-work – Time


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management - Work ethics –Good manners and etiquette.

UNIT V Employability Quotient

Resume building- The art of participating in Group Discussion – Facing the Personal (HR & Technical) Interview -Frequently Asked Questions -Psychometric Analysis - Mock Interview Sessions.



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Certificate Course in Communicative English

Objectives

- To develop communicative competence in the students
- To expose the students to the employment opportunities challenges and job roles
- To develop and integrate the use of four language skills i.e. listening, speaking, reading and writing
- To encourage students to use English in their day to day life

Learning outcomes

After completion of the course the student should be able to:

- Express ideas in clear and grammatically correct English without hesitation
- Develop their personality.
- Acquire confidence to speak fluently and write correctly in formal and informal situations.

Course Module:

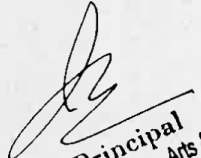
Unit 1 (10 Hrs)

- **Communication**
 - definition and major types of communication
 - process of communication
 - characteristics of effective communication
 - barriers of communication

Unit 2 (11 Hrs)

- **Grammar and its usage**
 - sentence structure
 - subject verb agreement
 - time and tense
 - articles
 - Prepositions

Unit 3 (11 Hrs)


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- **Reading and Writing Competence**

- Reading Comprehension: Identifying main ideas drawing inferences& summarizing
- Precis Writing
- Application and letter writing
- Formal email
- Resume /C.V

Suggested readings

- *A practical English grammar* - A.J. Thomson, A.V. Martinet - Oxford University press.
- *A handbook of English grammar and Usage* - D Thakur - Bharti Bhawan Publications.
- *Communicative English* - E. Suresh Kumar and P. Sreehari - Orient Blackswan .
- *Writing with a Purpose* - C. Tickoo and J. Sasi Kumar - Oxford University press.

For Admission Details Contact:


SK

Prof. (Dr.) Saloni Prasad (Mrs. Kumar)

Course Co-ordinator

Professor, Dept of English

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Course outcomes:

Upon completion students will be able to:

1. Select and apply markup languages for processing, identifying, and presenting of information in web pages.
2. Use scripting languages and web services to transfer data and add interactive components to web pages.
3. Create and manipulate web media objects using editing software

Course Content:

Module	Course Content	Duration
1.	Web Design Principles 1.1 Basic principles involved in developing a web site 1.2 Planning process 1.3 Five Golden rules of web designing 1.4 Designing navigation bar 1.5 Page design 1.6 Home Page Layout 1.7 Design Concept.	3 hours
2.	Basics in Web Design 2.1 Brief History of Internet 2.2 What is World Wide Web 2.3 Why create a web site 2.4 Web Standards 2.5 Audience requirement.	7 hours
3.	Introduction to HTML 3.1 What is HTML 3.2 HTML Documents 3.3 Basic structure of an HTML document 3.4 Creating an HTML document 3.5 Mark up Tags 3.6 Heading-Paragraphs 3.7 Line Breaks 3.8 HTML Tags.	9 hours
4.	Elements of HTML 4.1 Introduction to elements of HTML 4.2 Working with Text 4.3 Working with Lists, Tables and Frames 4.4 Working with Hyperlinks, Images and Multimedia 4.5 Working with Forms and controls.	6 hours
5.	Introduction to Cascading Style Sheets 5.1 Concept of CSS 5.2 Creating Style Sheet 5.3 CSS Properties 5.4 CSS Styling(Background, Text Format, Controlling Fonts) 5.5 Working with block elements and objects 5.6 Working with Lists and Tables 5.7 CSS Id and Class 5.8 Box Model(Introduction, Border properties, Padding Properties, Margin properties) 5.9 CSS Advanced(Grouping, Dimension, Display, Positioning, Floating, Align,Pseudo class, Navigation Bar, Image Sprites, Attribute sector) 5.10 CSS Color 5.11 Creating page Layout and Site Designs.	5 hours
6.	Introduction to Web Publishing or Hosting 6.1 Creating the Web Site 6.2 Saving the site 6.3 Working on the web site 6.4 Creating web site structure 6.5 Creating Titles for web pages 6.6 Themes-Publishing web sites.	2 hours
Total Duration		32 hours



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Class Mode: Classes shall be offered both through offline and online modes. 3 classes per week including practical class of around 1 hour to 1.5 hours per class shall be conducted on weekly basis. Weekend class schedules or after-regular college hours class schedules may also be offered for the convenience of students already pursuing degree courses subject to availability of batches.

Probable timing September 2019

(Time will be decided by the co-ordinator).

Students are requested to contact Department of Physics, COCAS, Patna for the details of the admission procedure.


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Certificate course in Video Editing

Aim: The aim of the course is to develop the knowledge & skill of Video Editing Techniques in Motion Picture Photography. Students will understand the working procedure of the Editing techniques for Motion Picture Photography (Videography) and can function either as an entrepreneur or can take up jobs in the industry.

Course Details:


Course Name	Certificate course in Video Editing
Course Co-ordinator	Dr. K.P. Yadav, Associate Professor, Dept. of Physics, COCAS, Patna.
Duration	33 Hours
Classes	1 hour each class. Maximum 6 class each week
Admission	As per Institutional rule.
Requirement	Basic knowledge of computer operating.

Objectives: The students will be able to gather the following skills:

1. Basic knowledge of Videography.
2. The techniques of script formation from a concept.
3. Understand the techniques of scene and short breakdown.
4. Understand the basics of screen technique.
5. The details about editing.
6. The practical knowledge of editing.



Resource Person
RAKESH KUMAR
VEDIOGRAPHER, PATNA


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Course Structure

Sl. No	Course Content	Duration
1.	Introduction to motion picture Photography Movement of frame, movement within a frame; persistence of vision, acuity (circle of confusion), static frames perception of colour, adaptative properties.	4 hours
2.	Cinematographic properties Basic shot terminology: Close up, Mid shot, long shot, Big close up, Mid-long shot, Extreme long shot, Point of view (POV) shot, Over-the Shoulder (OTS) shot, high angle and low angle shot, top angle shot. Matching of action, Reverse angle.	4 hours
3.	Video editing Linear (insert and assemble modes); Editing equipment: Edit VTR, Edit Control Unit, Vision Mixer; Computer Graphics (C.G.) etc.; Non-linear ; Recording of audio (commentary, dubbing, music). ; Effects (visual and audio)	12 hours
4.	Film Editing Preparation of script: fiction or non-fiction; Shooting of the script in film; Edit of the rushes / footages with sound; Review and final correction.	6 hours
5.	Practical	7 hours

Learning Outcomes

Upon successful completion of the program, students will be able to understand the basic editing tools and techniques of sound and video recordings in preparation for the mastering of a television program, motion picture or web application.

Course Co-ordinator:

Dr. K. P. Yadav,
Associate Professor,
Dept. of Physics,
College of Commerce, Arts and Science, Patna.


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Course: Vedic Mathematics

Duration: 30 hours

Course Objectives:

The main objectives of the course are

- Enhance calculation speed and numerical skills through Vedic Mathematics
- Develop logical and analytical thinking
- Sharpens the brain
- Crack entrance exams and get scholarship
- Provides an insight into ancient Indian mathematics

Course Syllabus:

Unit-I: Introduction to Vedic Mathematics, Vedic Maths Formulae-Sutras and sub-Sutras, Concept of Base and Compliments, Vedic methods of Addition, Addition without Carry Forward. **[5 hours]**

Unit-II: Vedic methods of Subtraction (all from 9 last from 10), Subtraction from numbers like 100, 1000, 10000..., Decimal numbers subtraction. **[5 hours]**

Unit-III: Magical Multiplication with 11-19, General multiplication- 2×2 , 3×2 , 4×2 , 3×3 , Magical Multiplication, Base Value Multiplication (Nikhilam Method). **[8 hours]**

Unit-IV: Sutra for finding Square of a number, Square of any two digits numbers- Base methods, Square of numbers ending with 5, Square root, Cubing (Yavadunam Sutra). **[4 hours]**

Unit-V: Magical Calander for year 2020, Magical Calander Concept (2001-2020), Concept of 100 Years Calanders. **[8 hours]**

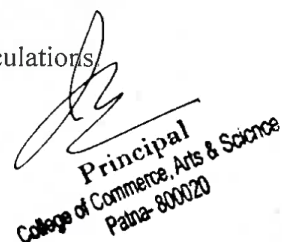
Suggested Readings:

1. Sumita Bose -2017 "Vedic Mathematics"– V&S Publishers, New Delhi.
2. H.K. Gupta -2014 "Vedic Mathematics"– BPI Publishers, New Delhi
3. Vedic Mathematics Made Easy, Dahawal Bhatia, Jaico Publication, New Delhi, 2011.

Course Outcomes:

At the end of the course the students will be able to:

- do faster calculation as compared to the traditional method.
- utilize Vedic sutras to enhance their skills for competitive examinations and able to solve question quickly in competitive examinations.
- provides an easy and convenient solution to difficult mathematics problems and calculations.
- enhance mental concentration.



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Certificate Course in
Energy and Sustainability

INSTAGRAM POST TEMPLATE
Renewable Energy




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About College

College of Commerce, Arts & science, Patna, established in 1949, recognized under Sections 2 (f) and 12 (B) of the UGC Act 1956 is a premier constituent College of Patliputra University. College was established by great visionary Late Pt. Indu Shekhar Jha on the advice of Dr. Rajendra Prasad with a pious motive to make quality education accessible for aspiring youths without any discrimination based on socio-cultural-economic grounds. The vision of its great founder Pt. Indushekar Jha was to make the commerce education accessible to the underprivileged and subaltern students of Bihar, which was rarely available. This revered institution started its journey from a small campus where P. N. Anglo School is located now to its present campus. Flowing in the incessant flow of imparting knowledge and being exposed to the warmth of time, this institution went on incorporating many streams in itself and today in this college education is imparted in the faculties of Sciences, Social Sciences, Commerce, Humanities and Law up to postgraduate levels. It is one of the oldest academic institutions located in the heart of the capital of Bihar, Patna. The College is situated in the exclusive neighborhood of Rajendra Nagar Railway Terminal and inhabits a 5.89-acre plot campus. The lush green landscape invites an aesthetic charmer and enhances the College atmosphere to an educational eden.

About the Course

Climate change is an urgent global challenge demanding engineering solutions and large-scale, systems-oriented coordination. In Sustainable Energy, you will join thousands of global learners in examining conventional and renewable energy generation technologies, studying how they are deployed throughout the world, and evaluating their roles in the future energy landscape. Technologies include solar power, wind power, storage, nuclear power, hydropower, and bioenergy.

In addition to technological components, you'll become familiar with the economic, political, and social dimensions of energy project planning.

Course Objectives

This course provides an introductory overview of the present energy systems and takes a brief look at where the world may find energy in the future – cleaner use of fossil fuels or renewable energy sources?

Course Outcome

After studying this course, you will be able to:

- understand and be aware of the importance of sustainable energy
- demonstrate an overview of the main sources of renewable energy

Mode of Learning

Hybrid

Online: Google Meet

Offline Class Room: Physics Department Smart Lecture Hall


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Schedule of Course

Two batches in every academic session
1st August to 30th November & 15th January to 15th May
Total Week: - 16 Weeks (40 Hours)

How can you apply for this course ?

All candidates are advised to contact course coordinator for admission. Only first-cum-first-serve basis is allowed for application. Any students from our college already enrolled under any course can apply for this course.

Syllabus

Week 1-2: Introduction to Energy and Sustainability

Understanding sustainability and its importance
Energy's role in sustainable development
Key sustainability goals and challenges

Week 3-4: Energy Sources and Environmental Impact

Fossil fuels, renewable energy, and their environmental implications
Transitioning to sustainable energy sources
Energy efficiency and conservation

Week 5-6: Renewable Energy Technologies

Solar power
Wind energy
Hydropower
Geothermal energy
Biomass and bioenergy

Week 7-8: Sustainable Transportation

Electric vehicles
Public transportation and urban planning
Sustainable fuels
Transportation efficiency and emissions reduction

Week 9-10: Energy Policy and Regulation

Government policies and incentives
Global agreements (e.g., Paris Agreement)
Energy markets and pricing
Regulatory bodies and their roles


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Week 11-12: Energy and Corporate Sustainability

Corporate social responsibility

Sustainable supply chains

Sustainability reporting and accountability

Case studies of sustainable business practices

Week 13-14: Energy Efficiency in Buildings

Green building design and construction

Energy-efficient appliances and technologies

Sustainable architecture and urban planning

Week 15: Final Projects and Presentations


Students present their research or projects related to energy and sustainability.

Assessment:

Quizzes and assignments

Class participation

Group project on a renewable energy system design or feasibility study

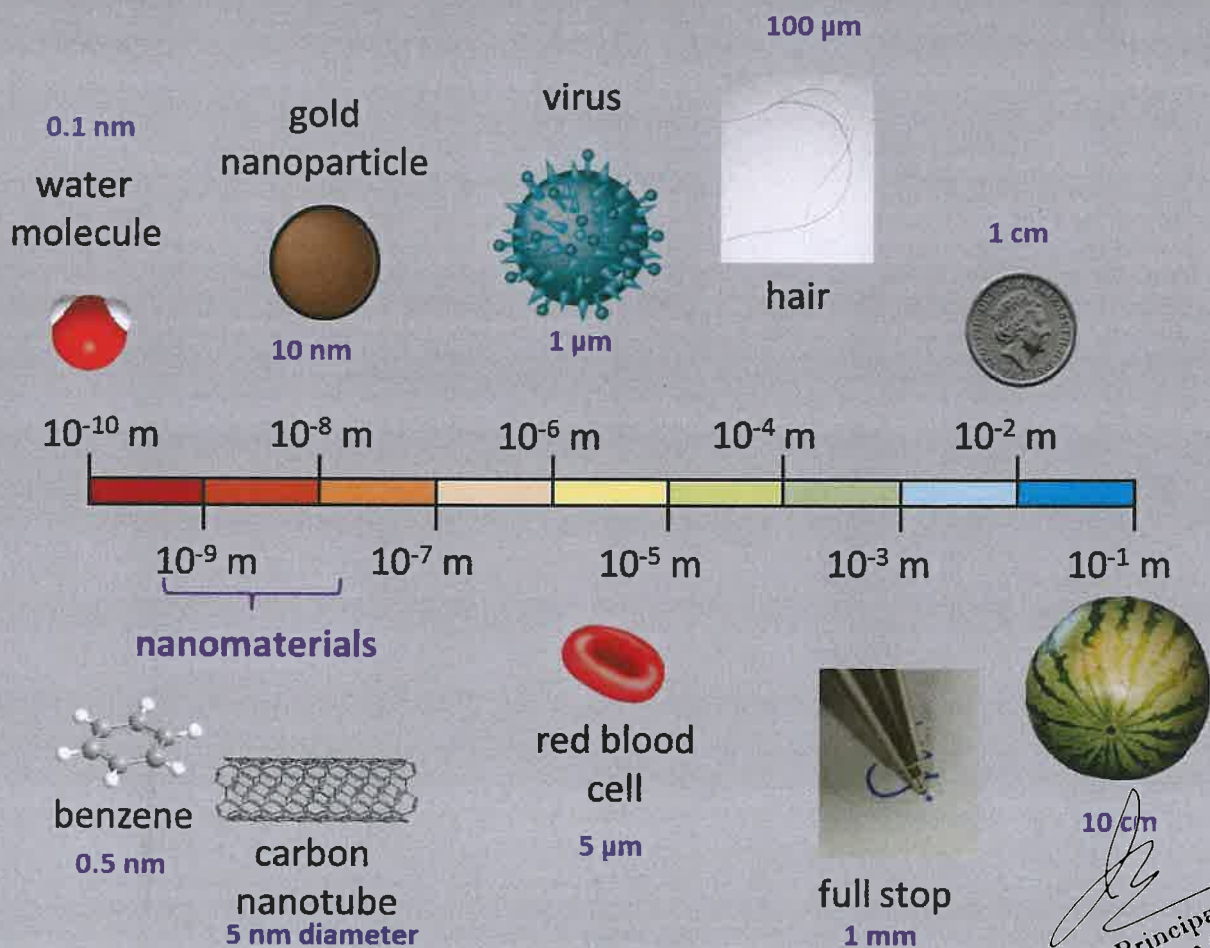


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Certificate Course in
Nanotechnology



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About College

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About the Course

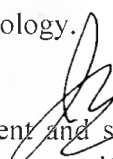
Nanotechnology is broad interdisciplinary areas that encompass (bio)chemistry, physics, biology, materials science, electrical engineering and more. The present course will provide a survey on some of the fundamental principles behind nanotechnology and nanomaterials and their vital role in novel sensing properties and applications. The course will discuss interesting interdisciplinary scientific and engineering knowledge at the nanoscale to understand fundamental physical differences at the nanoscale.

Course Objectives

The course main objective is to enhance critical, creative, and innovative thinking. The course encourages multicultural group work, constructing international 'thinking tanks' for the creation of new ideas. Throughout the course, you will be asked to reflect upon your learning, think "out of the box", and suggest creative ideas.

Course Outcome

1. Apply principles of basic science concepts in understanding, analysis and prediction of matter at Nano scale.
2. To introduce interdisciplinary subjects/concepts/ideas for interdisciplinary application of science and engineering concepts.
3. To introduce advanced ideas and techniques required in emergent area of nanotechnology.
4. Engage in lifelong learning and adapt to changing professional and societal needs.
5. A student will be able to consider nanotechnology as a means of self-employment and source of income.


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Mode of Learning

Hybrid

Online: Google Meet

Offline Class Room: Physics Department Smart Lecture Hall

Schedule of Course

Three batches in every academic session

Total Duration: - 32 Hours

How can you apply for this course ?

All candidates are advised to contact course coordinator for admission. Only first-cum-first serve basis is allowed for application. Any students from our college already enrolled under any course can apply for this course.

Syllabus

Week 1: Introduction to Nanotechnology

Overview of nanoscale science and engineering

Historical perspective and key milestones

Interdisciplinary nature of nanotechnology

Week 2: Nanomaterials

Properties and synthesis of nanomaterials

Characterization techniques: TEM, SEM, AFM, XRD

Applications of nanomaterials in industry

Week 3: Nanofabrication Techniques

Top-down and bottom-up fabrication approaches

Photolithography, electron beam lithography, and nanoimprint lithography

Chemical vapor deposition, atomic layer deposition, and self-assembly

Week 4: Nanoelectronics

Introduction to nanoelectronics and Moore's Law

Nanoscale transistors and their limitations

Emerging nanoelectronic devices (e.g., memristors, quantum dots)


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Week 5: Nanophotonics and Plasmonics

Basics of light-matter interactions at the nanoscale

Nanophotonic devices: waveguides, sensors, and modulators

Plasmonics for enhanced light-matter interactions

Week 6: Nanomagnetism

Magnetic nanoparticles and their applications

Magnetic data storage and spintronics

Magnetic nanoparticles in biomedicine

Week 7: Nanobiotechnology

Nanomaterials in biological and medical applications

Drug delivery systems and theranostics

Ethical considerations in nanobiotechnology

Week 8: Nanotechnology in Energy

Nanomaterials for energy storage and conversion

Solar cells, batteries, and fuel cells

Environmental implications of nanotechnology

Week 9: Nanosafety and Regulation

Health and safety considerations when working with nanomaterials

Regulatory frameworks for nanotechnology

Risk assessment and mitigation strategies

Week 10: Nanotechnology Entrepreneurship

Startups and commercialization in nanotechnology

Business models and funding opportunities

Intellectual property and patents

Week 11: Future Trends in Nanotechnology

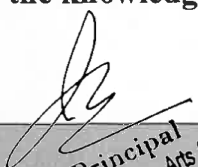
Quantum nanotechnology and quantum computing

Nanorobotics and molecular machines

Ethical, societal, and environmental implications of future nanotech

Week 12: Capstone Project

Students work on a small-scale nanotechnology project or case study, applying the knowledge and skills gained throughout the course.


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Assessment:

Quizzes and assignments

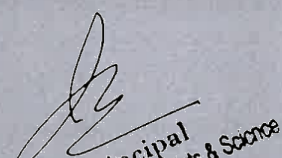
Class participation

Group project on a renewable energy system design or feasibility study

Why you should Join the Course?

Nanotechnology is the study of controlling matter on a nuclear, atomic and supramolecular scale. The field of **Nanotechnology** is very diverse that includes new methodologies dependent on sub-atomic self-gathering, control of the issue on a nuclear scale, and advancement of new materials with measurements on the Nanoscale. The study of **Nanotechnology** involves the utilization of various fields of science. Such fields include organic chemistry, microfabrication, molecular biology, atomic science, surface science, and semiconductor material science. The ones who mean to have a career where they get the opportunity to leap forward in advancement in the field of science need to look no further as **Nanotechnology** is the eventual fate of science.




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Department of Economics

College of Commerce, Arts & Science, Patna

A Three- Months Certificate Programme

Students will get a chance to pursue value added course along with the subjects that they have opted for with an objective to increase their learning output.

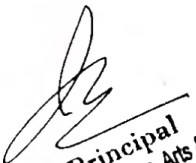
Course Name: Fundamentals of Disaster Management

Course Co-Ordinator: Prof (Dr) Rashmi Akhoury

Department of Economics, College of Commerce, Arts & Science, Patna-20

Course Description

Potential Participants:	10+2 or its equivalent
Duration:	Three Months (12 weeks) Three classes per week tentatively
Number of Hours:	36 Hours
Mode of Learning: Hybrid:	(Online+Offline)
No of Students:	150
Medium of Instruction of the Course:	English & Hindi


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Fundamentals of Disaster Management intends to familiarise the learners with the meaning, factors, significance, causes and effects of disasters.

This Course deals specifically with essentials of disaster preparedness and focuses on techniques for effective community participation, besides highlighting ways to collect relevant information pertaining to disasters and also its effective dissemination.

Learning Objectives

The course is intended to provide a general concept in the dimensions of disasters caused by nature beyond the human control as well as the disasters and environmental hazards induced by human activities with emphasis on disaster preparedness, response and recovery.

Learning Outcomes

After completing a Certificate in Disaster Management [CDM] course, professionals may get opportunities to work in government sectors with emergency services, law enforcement department, relief groups, and local authorities. Professionals may work in various positions and roles offered by the top organizations like assistants, trainees, experts, analysts, researchers, environmental experts, engineers, medical health experts, rehabilitation workers etc.

Course Outline

Unit: I

Definition and types of disaster Hazards and Disasters, Risk and Vulnerability in Disasters, Natural and Man-made disasters, earthquakes, floods drought, landside, land subsidence, cyclones, volcanoes, tsunami, avalanches, global climate extremes. Man-made disasters: Terrorism, gas and radiations leaks, toxic waste disposal, oil spills, forest fires.

Unit: II

Study of Important disasters Earthquakes and its types, magnitude and intensity, seismic zones of India, major fault systems of India plate, flood types and its management, drought types and its management, landside, and its managements case studies of disasters in Sikkim (e.g) Earthquakes, Landside). Social Economics and Environmental impact of disasters.

Unit: III

Mitigation and Management techniques of Disaster Basic principles of disasters management, Disaster Management cycle, Disaster management policy, National and State Bodies for Disaster Management, Early Warning Systems, building design and construction in highly seismic zones, retrofitting of buildings.

Unit IV

Training, awareness program and project on disaster management Training and drills for disaster preparedness, Awareness generation program, Usages of GIS and Remote sensing techniques in disaster management, Mini project on disaster risk assessment and preparedness for disasters with reference to disasters in Sikkim and its surrounding areas.

Assessment Details

The students have to mandatorily maintain 75% attendance. After that, they will be allowed to sit in the final examination. The examination will carry 100 marks. It will be a 3 hours exam. The examination paper will consist of both objective and subjective questions.


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References and Text Books:

1. Disaster Management Guidelines, GOI-UND Disaster Risk Program (2009-2012)
2. Damon, P. Copola, (2006) Introduction to International Disaster Management, Butterworth Heineman.
3. Gupta A.K., Niar S.S and Chatterjee S. (2013) Disaster management and Risk Reduction, Role of Environmental Knowledge, Narosa Publishing House, Delhi.
4. Murthy D.B.N. (2012) Disaster Management, Deep and Deep Publication PVT Ltd New Delhi.
5. Modh S. (2010) Managing Natural Disasters, Mac Millan publishers India LTD.

Department of Economics
College of Commerce, Arts & Science, Patna

Three- Months Certificate Programme

Students will get a chance to pursue value added course along with the subjects that they have opted for with an objective to increase their learning output.

Course Name: Applied Financial Literacy & Banking

Course Co-Ordinator: Dr Baikunth Roy

Assistant Professor
Department of Economics, College of Commerce, Arts & Science, Patna-20

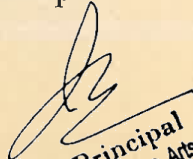
Eligibility & Schedule of the Course

Potential Participants:	10+2 or its equivalent
Duration:	Three Months (12 weeks) Three classes per week tentatively
Number of Hours:	36 Hours
Mode of Learning: Hybrid:	(Online+Offline)
No of Students:	120

Medium of Instruction of the Course: English & Hindi

Vision: To educate and empower students with financial knowledge and resources, so they can ultimately apply this knowledge to their lives, have financial security and attain financial wellness.

Mission: To provide a holistic financial literacy curriculum offered at multiple touchpoints throughout a student's educational journey.


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Learning Objectives:

The Learning Objectives of this course are as follows:

- Familiarity with different aspects of financial literacy such as savings, investment, taxation, and insurance
- Understand the relevance and process of financial planning
- Promote financial well-being

Expected Learning outcomes:

The Learning Outcomes of this course are as follows:

- Develop proficiency for personal and family financial planning
- Apply the concept of investment planning
- Ability to analyse banking and insurance products
- Personal tax planning

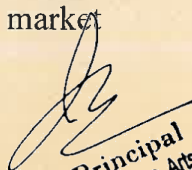
Thus, It will make a more responsible individual with a disciplined approach to money and helps people from overspending and inculcates a habit of savings and investments. In short, Students will demonstrate knowledge of money management within three main areas: responsible borrowing, budgeting, and credit.

SYLLABUS OF FINANCIAL LITERACY

Unit: I- Basics of Savings and Investment: Why are investing and savings important? Savings Vs Investment, Power of Compounding, What should be the investment objectives? Risk and Return, Inflation effects on Investment, Investor's Age and Assets Allocation.

Unit: II- Banking Activities: Deposits and Types of Deposits-Saving Bank Accounts, Fixed Deposit Accounts, Recurring Deposit Account, Special Term Deposit Schemes, Loans and Types of loan advanced by Banks and other secondary functions of Bank. Banking structure in India and Role of Reserve Bank of India.

Unit: III- Financial Markets: Capital Market Vs Money Market, Securities and its types, i.e., Equity, Debentures or Bonds, IPOs and FPOs, Mutual Funds, Types of Mutual Funds, Brokers, sub-brokers, Process for becoming a capital market investor.


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Unit: IV- Protection Related products: Insurance Policies, Life Insurance, Term Life Insurance, Endowment Policies, Pension Policies, ULIP, Health Insurance and its Plans, Understanding of Ponzi Schemes.

Unit: V- Tax Saving Schemes: Government Schemes- National Saving Certificates, Public Provident Fund, Post Office Schemes, Equity Linked Savings Schemes, Retirement Benefits Schemes- NPS (New Pension System).

Note: Some of the theoretical concepts would be dealt with during practice hours.

Assessment Details

The students have to mandatorily maintain 75% attendance. After that, they will be allowed to sit in the final examination. The examination will carry 100 marks. It will be a 3 hours exam. The examination paper will consist of both objective and subjective questions.

Essential/Recommended readings

Introduction to Financial Planning (4th Edition 2017)- Indian Institute of Banking & Finance.

Indian financial System, by T. R. Jain and R. L. Sharma, VK Global Publisher.

Money and Banking by T. R. Jain and R. K. Kaundal, VK Global Publisher


Investment Planning by SEBI.

Suggested Readings

• Halan, Monika, Let's Talk Money: You've Worked Hard for It, Now Make It Work for You, July 2018 Harper Business.

• Pandit, Amar The Only Financial Planning Book that You Will Ever Need, Network 18 Publications Ltd.

Sinha, Madhu. Financial Planning: A Ready Reckoner July 2017, McGraw Hill.


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Department of Zoology

In association with

IQAC

**College of Commerce, Arts and Science
(Accredited Grade 'A' by NAAC)
Patliputra University**

is organising

CERTIFICATE COURSE IN "FOUNDATION OF YOG"



Tentative Date - 03/02/2020

Registration begins on 21/01/2020

Convenor

Dr. Rashmi Kumari

Assistant Professor
Department of Zoology


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INTRODUCTION

Yoga is a complete science of life that originated in India thousands of years ago. It can be said authentically that history of yoga is as old as the Indian history. Yoga has remained a part of our civilization. On the basis of various sculptures and scriptures, Lord Shiva is seen as the first yogi or Adi yogi and the first guru or Adi Guru of yoga. While Yajnavalkya Smriti states, "Hiranya Garbho Yogasya Vakta Naneya Purataneh" which means Hiranyagarbha is first speaker of yoga. Nobody is more ancient than him. However, Maharishi Patanjali is considered to be the first compiler of body culture in yoga. He was the first person to structure Yoga in systematic and scientific way and divided Sadhanpaad into eight limbs of yoga including Yama, Niyama, Asana, Pranayam, Pratyahara, Dharna, Dhyan, and Samadhi. In the era of technological advancements and globalization, students have started following a sedentary lifestyle and not participating in any kind of physical fitness activities. This is leading them to suffer from many physical and mental ailments. The beauty of Yoga is that it is accessible to everyone, you don't need equipment, partner and much space. Yoga is not a religion but a way of life. The main goal of yoga is to educate people about the scientific way of yoga and make them aware of the rich tradition of Indian Culture for maintaining wellness. In this course, we are mainly focusing on Hatha Yoga and Ashtang Yoga. After having practiced the course, students can master the art of yoga and reap its lifelong benefits.

Name of the Course:

"Certificate Course in Foundation of Yog".

Duration of the course: (32 Hours)

The duration of the Course is 32 hours, for a period of fifteen days. The classes will be conducted 6 days in a week, Monday to Saturday from 7:00 am to 9:00 am.

Aim of the Course:

The aim of this course is to aware the students about the importance of health, wellness and to motivate students to take part in health and fitness activities so that they can have sound mind in sound body.

Objectives of the Course:

1. To teach the scientific and spiritual aspects of yoga.
2. To teach the precautions to be taken care for performing different asanas.


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3. To make aware the benefits of performing different yogasana.
4. To make aware of therapeutic aspects of asanas and pranayama and promotion of health.
5. To develop healthy lifestyle of an individual through practice of Ashtang Yoga.

Eligibility: All College of Commerce, Arts & Science students are eligible for this course.

Number of Seats: Intake capacity 120, first come first serve basis.

Medium of Instruction: Hindi / English

Health Status: The applicant must be in good mental and physical health and have to submit the declaration in the google form.

Dress Code: The dress shall be White T-Shirt and black track pants for participants.

Course Timings: The tentative course timing for conducting this programme is 7:00 am to 9:00 am. However, the timings may be changed as per the convenience of the Institute. Batch Schedule: February, 2020.

Course Fee: Nil

Award of Certificate: At the end of the course there will be practical exam and those candidates who have secured minimum 90% attendance will only be allowed to appear in the practical examination. Certificate will be awarded only to those candidates who clear the practical examination.

Rules & Regulations:

- (A) Every student of the course should maintain discipline during the class and not to disturb any other participants and must possess 90% of attendance.
- (B) Candidates must attend practical classes daily with empty stomach or light stomach as advised by the Yoga experts.
- (C) Department of Zoology reserves the right to change, delete, alter and add any of the rules and regulations as and when necessary, without prior notice and its decision will be final.


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SYLLABUS:

Theory:

Meaning, Definitions, History and Importance of Yoga

Practical:

1. Yogic Prayer
2. Shatkarm: Kapalbhathi
3. Sukshm Vyayam
4. Sthool Vyayam
5. Asanas

Standing Postures: Tadasana , Padahastanasana, Veerabhadrasana, Garudasana, Vrikshaasana, Trikonasana, Ardha-Katichakrasana, Natrajasana, Parvratasana, Ardha-Chakrasana

Sitting Posture: Padmasana, Vajrasana, Gomukhasana, Ustrasana, Paschimottanasana, Vakrasana, Bhadrasana, Baddha-konasana, Matsyendrasana, Janusirsasana

Supine Posture: Sarvangasana, Halasana, Setubandhasana, Chakrasana, Markatasana, Uttanpadasana, Pawanmuktasana, Nawasana, Matsyasana

Shavasana: Sarvangasana, Halasana, Setubandhasana, Chakrasana, Markatasana, Uttanpadasana, Pawanmuktasana, Nawasana, Matsyasana

Prone Posture: Makrasana, Bhujangasana, Shalabhasana, Dhanurasana, Naukasana, Sarpasana

6. Nadishodhan
7. Pranayama Bhastrika, Bhramari and Udgeeth Pranayam
8. Meditation

Others:

Suryanamskar, Deep Relaxation Technique

Resource Person

Arti Pathik

Founder Pathik Yogasana Academy

Boring Canal Road, Patna


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College of Commerce, Arts & Science, Patna
(Patliputra University, Patna)

Internal Quality Assurance Cell
Organizing a Certificate Course in

“Personality Development”

Patron

Prof. Tapan Kumar Shandilya
Principal

IQAC Co-ordinator

Dr. Santosh Kumar
Associate Professor

Course Co-ordinator

Dr. Vandana Maurya
Assistant Professor


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Course Description:

Every individual possesses a unique set of traits and characteristics, which remains stable overtime. This uniqueness and consistency forms the aspects of personality. It is the stability of these characteristics that sometimes assist in predicting behaviour of a given person. There are many factors like biological characteristics, family and social groups, cultural and social factor, which contributes towards the formation of personality. An individual can be manifested in various forms like authoritarian personality, bureaucratic personality, and Machiavellian personality, etc. There are many theories that are developed in predicting the behaviour of an individual on the basis of various attributes. Some tests are also designed to assess the personality of an individual. On the other hand, good communication is vital to any institution's successful operation and equally imperative for a man's personality development. Therefore, combined with the convincing evidence that most organizational communication is inadequate, leads to yet another conclusion: that communication is an area that deserves further study by those concerned with improving organizational operations. Two-way communication is more effective than one-way communication. The feedback allows the sender to refine his communication so that it becomes more precise and accurate. Receivers' self-confidence is higher in case of two-way communication as they are permitted to ask questions and seek clarification from the senders. Hence, in this course, the theories and practices would be deliberated.

Duration:

45-hour course (2 hours each session, six days a week).

Objectives:

1. Exposing participants to the fundamentals of personality development and communication skills practices.
2. Building in confidence and capability amongst the participants with regard to personality development and communication skills.
3. Providing exposure to practical problems and their solutions, through case studies and live projects in personality development process and communication skills.



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4. Enhancing the capability of the participants to identify, control and improve personality development indicators and enhanced communication skill.

Course outcomes:

- Understanding the origin and development of personality.
- Managing better physical and mental health.
- Learn to manage optimal performance.
- Learn to manage work-life Balance.
- Better relationships with family and friends and soft skills utilization.
- Learning self-care through lifestyle changes.
- Acquiring life skills and preparing for a better future by reducing the stress.

Certification:

Upon successful completion of this course, participants will be issued with a certificate.

Course Content:

UNIT I Introduction to Personality Development

The concept of personality - Dimensions of personality – Theories of Freud & Erickson- Significance of personality development. The concept of success and failure: What is success? - Hurdles in achieving success - Overcoming hurdles - Factors responsible for success – What is failure - Causes of failure. SWOT analysis.

UNIT II Attitude & Motivation

Attitude - Concept - Significance - Factors affecting attitudes - Positive attitude – Advantages –Negative attitude- Disadvantages - Ways to develop positive attitude - Differences between personalities having positive and negative attitude. Concept of motivation - Significance – Internal and external motives - Importance of self- motivation- Factors leading to demotivation

UNIT III Self-esteem

Term self-esteem - Symptoms - Advantages - Do's and Don'ts to develop positive self-esteem – Low self- esteem - Symptoms - Personality having low self-esteem - Positive and negative self-esteem. Interpersonal Relationships – Defining the difference between aggressive, submissive and assertive behaviours - Lateral thinking.

UNIT IV Other Aspects of Personality Development

Body language - Problem-solving - Conflict and Stress Management - Decision-making skills - Leadership and qualities of a successful leader – Character building -Team-work – Time


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management - Work ethics –Good manners and etiquette.

UNIT V Employability Quotient

Resume building- The art of participating in Group Discussion – Facing the Personal (HR & Technical) Interview -Frequently Asked Questions - Psychometric Analysis - Mock Interview Sessions.



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Department of Economics
College of Commerce, Arts & Science, Patna

Three- Months Certificate Course

Students will get a chance to pursue value added course along with the subjects that they have opted for with an objective to increase their learning output.

Course Name: Foundations of Gender Studies

Course Co-Ordinator: Prof (Dr) Rashmi Akhoury

Department of Economics, College of Commerce, Arts & Science, Patna-20

Course Description

Potential Participants:	10+2 or its equivalent
Duration:	Three Months (12 weeks) Three classes per week tentatively
Number of Hours:	36 Hours
Mode of Learning: Hybrid:	(Online+Offline)
No of Students:	150
Medium of Instruction of the Course:	English & Hindi

Course Objectives:

This Course seeks to build gender studies perspective to knowledge production.

Key Objectives:

This Course seeks to

1. Introduce participants to the field of women's/ gender studies and critical debates in it in India
2. Build gender studies perspective to knowledge production.
3. Introduce students to writing research/ field report
4. To develop gender sensitive pedagogy and knowledge system
5. To introduce epistemological and ontological aspects of gender studies to academicians coming from different streams of knowledge in a structured manner.

Learning Outcomes

A gender bias free teaching –learning process can be instrumental in bringing about positive social change towards an egalitarian society. A faculty member who values practices and espouses gender equity would inspire his/her students to make their career decisions in an unbiased and confident manner leading to judicious presence of males and females in all areas of study and profession. This course will provide academic perspectives and inputs to policy makers whereby they will be able to address the problems of gender bias in the society through enabling policy making and legislation.

Course Outline

The Course is broadly categorized into ten themes and designed to span forty modules. These modules deal with the concepts, theories, research methodologies, movements, programmes and policies related to the gender studies.

Unit-1

Constructing Gender - Introduction to women's/ gender studies - What is women's studies? Emergence and growth of women's/ gender studies in India, engendering of disciplines and disciplining of gender.

- Core Concepts of Gender/Evolution in Gender Studies

- Patriarchy: Power, Structure and Practices
- Masculinity/Femininity: An Overview

Unit 2

Constructing Gender & Inter-sectionality/Gender Mainstreaming: Theoretical Issues and Debates

- Understanding Sexuality: Conceptual Underpinnings
- Inclusion, Exclusion, Discrimination: Caste, Class, Ethnicity
- Waves of Feminism/Gender Theories

Unit 3

Inter-sectionality/Gender Mainstreaming: Theoretical Issues and Debates & Women in History

- Political Ideologies & Women- Liberal, Radical Socialist and Communist
- Gender Equity and State Policy for Gender Mainstreaming
- Gender Historiography (Representation of Women in History)

Unit 4

Women in History & Women's Struggle and Movements: Evolution and Key Debates

- Status of Women in Ancient, Medieval and Modern India
- Social Reform Movements in India (pre- and post-independence)
- Women's Movement in a Global Perspective (e.g., National Liberation movements, suffragette movement)

Unit 5

Women's Struggle and Movements: Evolution and Key Debates

- Women's Struggle and Movement in India: A Historical Perspective- 19th Century to date
- Beijing Declaration/ UN Documentations – Platform for Action (PFA)
- Case Studies (AFSPA, Women Refugees etc - in context of Human Security) (Domestic Law superseding International Convention)

Unit 6

Women's Struggle and Movements: Evolution and Key Debates & Major Initiatives and Interventions towards Women's Empowerment: Trends and Emerging Issues- Migrant and Refugee women

- Role of Non-Formal Politics/ Civil Society Movements
- Interventions towards empowerment- MDGs, SDGs, CEDAW (Global)
- Case Studies in Indian Context (MDGs, SDGs, CEDAW etc.)

Unit 7

Major Initiatives and Interventions towards Women's Empowerment: Trends and Emerging Issues- Migrant and Refugee women & Gender Equality and Women's Protection: Law and Legislation in India

- Feminization of Migration
- Refugee Women and Displacement for Development
- Indian Constitution & Status of Women (Roots of Violence, Social-Economic and Political Factors/ Power and Patriarchy)

Unit 8

Gender Equality and Women's Protection: Law and Legislation in India

- Amendments 73,74 (Empowerment of Women in Local/ Rural and Urban Government Acts: Domestic Violence, Prevention of Sexual Harassment/Vishaka Guidelines (History of Sexual Harassment at Workplace Laws/Acts)
- Uniform Civil Code/Personal Laws & Gender Justice
- Section 377 and the Supreme Court Judgement: Decriminalising Sexuality

Unit 9

Indian State and Public Policy: Processes and Outcomes

- Political Participation of Women
- Self Help Groups & Micro-economic Programs: Socio- economic and Political aspects
- Education Policy in India: Analyzing Outcomes and Challenges

Unit 10

Indian State and Public Policy: Processes and Outcomes & Women in Science, Technology & Sustainable Development

- Dealing with Disability- State policy and its Implementation
- Health Policies in India: A critical review (Rights of Women regarding their bodies (Surrogacy – Reproductive Health, etc)
- Globalization and Impact of Economic policy on Women (Major approaches; WID, WAD, GAD/ UN/ILO and Indian initiatives)

Unit 11

Women in Science, Technology & Sustainable Development

- Labour Work Participation/Labour Laws and Wage disparity (Leadership and employment (Managerial – Private and Public sector)
- Eco-Feminism (Forest Rights Act)
- Women in Science – ICT, STEM professional

Unit 12

Arts, Literature and Media: Gender & Representation

- Gender in Performing Arts
- Literature and Gender
- Women in/ and the Media

Unit 13:

Arts, Literature and Media: Gender & Representation & Feminist Research Methodology

- Women in a Digital World
- Feminist Methods in Social Science Research
- Invisibility of data and alternative research Paradigms

College of Commerce, Arts & Science, Patna

Certificate Course in Communicative English

Objectives

- To develop communicative competence in the students
- To expose the students to the employment opportunities challenges and job roles
- To develop and integrate the use of four language skills i.e. listening, speaking, reading and writing
- To encourage students to use English in their day to day life

Learning outcomes

After completion of the course the student should be able to:

- Express ideas in clear and grammatically correct English without hesitation
- Develop their personality.
- Acquire confidence to speak fluently and write correctly in formal and informal situations.

Course Module:

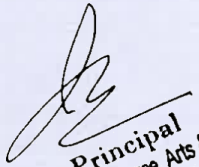
Unit 1 (10 Hrs)

- **Communication**
 - definition and major types of communication
 - process of communication
 - characteristics of effective communication
 - barriers of communication

Unit 2 (11 Hrs)

- **Grammar and its usage**
 - sentence structure
 - subject verb agreement
 - time and tense
 - articles
 - Prepositions

Unit 3 (11 Hrs)


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- **Reading and Writing Competence**


- Reading Comprehension: Identifying main ideas drawing inferences& summarizing
- Precis Writing
- Application and letter writing
- Formal email
- Resume /C.V

Suggested readings

- *A practical English grammar* - A.J. Thomson, A.V. Martinet - Oxford University press.
- *A handbook of English grammar and Usage* - D Thakur - Bharti Bhawan Publications.
- *Communicative English* - E. Suresh Kumar and P. Sreehari - Orient Blackswan .
- *Writing with a Purpose* - C. Tickoo and J. Sasi Kumar - Oxford University press.

For Admission Details Contact:


Prof. (Dr.) Saloni Prasad (Mrs. Kumar)
Course Co-ordinator
Professor, Dept of English
College of Commerce, Arts & Science, Patna-20


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32 Hours Programme on Certificate Course in Web Design

About the course:

The course is designed to give some idea to beginner and intermediate students about basic web designing. This comprehensive, easy-to-understand course will teach learners the fundamentals of web develop and techniques. This course will provide full understanding of key concepts that are commonly used in web pages, including the meaning of inheritance, cascade, pseudo classes elements and selectors. The course then guides you through the use of font, background styles and style sheets.

Duration: 32 hours

Highlights of the Course:

- ❖ Industry centric curriculum with job-oriented training.
- ❖ Hands on practical training with latest software
- ❖ Experienced Faculty

Course Coordinator:

Anita Sagar

Assistant Professor

Department of Physics

College of Commerce, Arts & Science

A Constituent Unit of Patliputra University, Patna

Objectives –

The student will be able to

1. Define the principle of Web page design
2. Define the basics in web design
3. Visualize the basic concept of HTML.
4. Recognize the elements of HTML.
5. Introduce basics concept of CSS.
6. Develop the concept of web publishing


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Course outcomes:

Upon completion students will be able to:

1. Select and apply markup languages for processing, identifying, and presenting of information in web pages.
2. Use scripting languages and web services to transfer data and add interactive components to web pages.
3. Create and manipulate web media objects using editing software

Course Content:

Module	Course Content	Duration
1.	Web Design Principles 1.1 Basic principles involved in developing a web site 1.2 Planning process 1.3 Five Golden rules of web designing 1.4 Designing navigation bar 1.5 Page design 1.6 Home Page Layout 1.7 Design Concept.	3 hours
2.	Basics in Web Design 2.1 Brief History of Internet 2.2 What is World Wide Web 2.3 Why create a web site 2.4 Web Standards 2.5 Audience requirement.	7 hours
3.	Introduction to HTML 3.1 What is HTML 3.2 HTML Documents 3.3 Basic structure of an HTML document 3.4 Creating an HTML document 3.5 Mark up Tags 3.6 Heading-Paragraphs 3.7 Line Breaks 3.8 HTML Tags.	9 hours
4.	Elements of HTML 4.1 Introduction to elements of HTML 4.2 Working with Text 4.3 Working with Lists, Tables and Frames 4.4 Working with Hyperlinks, Images and Multimedia 4.5 Working with Forms and controls.	6 hours
5.	Introduction to Cascading Style Sheets 5.1 Concept of CSS 5.2 Creating Style Sheet 5.3 CSS Properties 5.4 CSS Styling(Background, Text Format, Controlling Fonts) 5.5 Working with block elements and objects 5.6 Working with Lists and Tables 5.7 CSS Id and Class 5.8 Box Model(Introduction, Border properties, Padding Properties, Margin properties) 5.9 CSS Advanced(Grouping, Dimension, Display, Positioning, Floating, Align,Pseudo class, Navigation Bar, Image Sprites, Attribute sector) 5.10 CSS Color 5.11 Creating page Layout and Site Designs.	5 hours
6.	Introduction to Web Publishing or Hosting 6.1 Creating the Web Site 6.2 Saving the site 6.3 Working on the web site 6.4 Creating web site structure 6.5 Creating Titles for web pages 6.6 Themes-Publishing web sites.	2 hours
Total Duration		32 hours


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Class Mode: Classes shall be offered both through offline and online modes. 3 classes per week including practical class of around 1 hour to 1.5 hours per class shall be conducted on weekly basis. Weekend class schedules or after-regular college hours class schedules may also be offered for the convenience of students already pursuing degree courses subject to availability of batches.

Probable timing September 2018.

(Time will be decided by the co-ordinator).

Students are requested to contact Department of Physics, COCAS, Patna for the details of the admission procedure.


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Department of Economics

College of Commerce, Arts & Science, Patna

A Three- Months Certificate Programme

Students will get a chance to pursue value added course along with the subjects that they have opted for with an objective to increase their learning output.

Course Name: Fundamentals of Disaster Management

Course Co-Ordinator: Prof (Dr) Rashmi Akhoury

Department of Economics, College of Commerce, Arts & Science, Patna-20

Course Description

Potential Participants: 10+2 or its equivalent

Duration: Three Months (12 weeks)

Three classes per week tentatively

Number of Hours: 36 Hours

Mode of Learning: Hybrid: (Online+Offline)

No of Students: 150

Medium of Instruction of the Course: English & Hindi

Fundamentals of Disaster Management intends to familiarise the learners with the meaning, factors, significance, causes and effects of disasters.

This Course deals specifically with essentials of disaster preparedness and focuses on techniques for effective community participation, besides highlighting ways to collect relevant information pertaining to disasters and also its effective dissemination.

Learning Objectives

The course is intended to provide a general concept in the dimensions of disasters caused by nature beyond the human control as well as the disasters and environmental hazards induced by human activities with emphasis on disaster preparedness, response and recovery.

Learning Outcomes

After completing a Certificate in Disaster Management [CDM] course, professionals may get opportunities to work in government sectors with emergency services, law enforcement department, relief groups, and local authorities. Professionals may work in various positions and roles offered by the top organizations like assistants, trainees, experts, analysts, researchers, environmental experts, engineers, medical health experts, rehabilitation workers etc.

Course Outline

Unit: I

Definition and types of disaster Hazards and Disasters, Risk and Vulnerability in Disasters, Natural and Man-made disasters, earthquakes, floods drought, landside, land subsidence, cyclones, volcanoes, tsunami, avalanches, global climate extremes. Man-made disasters: Terrorism, gas and radiations leaks, toxic waste disposal, oil spills, forest fires.

Unit: II

Study of Important disasters Earthquakes and its types, magnitude and intensity, seismic zones of India, major fault systems of India plate, flood types and its management, drought types and its management, landside, and its managements case studies of disasters in Sikkim (e.g Earthquakes, Landside). Social Economics and Environmental impact of disasters.

Unit: III


Mitigation and Management techniques of Disaster Basic principles of disasters management, Disaster Management cycle, Disaster management policy, National and State Bodies for Disaster Management, Early Warning Systems, building design and construction in highly seismic zones, retrofitting of buildings.

Unit IV

Training, awareness program and project on disaster management Training and drills for disaster preparedness, Awareness generation program, Usages of GIS and Remote sensing techniques in disaster management, Mini project on disaster risk assessment and preparedness for disasters with reference to disasters in Sikkim and its surrounding areas.

Assessment Details

The students have to mandatorily maintain 75% attendance. After that, they will be allowed to sit in the final examination. The examination will carry 100 marks. It will be a 3 hours exam. The examination paper will consist of both objective and subjective questions.


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References and Text Books:

1. Disaster Management Guidelines, GOI-UND Disaster Risk Program (2009-2012)
2. Damon, P. Copola, (2006) Introduction to International Disaster Management, Butterworth Heineman.
3. Gupta A.K., Niar S.S and Chatterjee S. (2013) Disaster management and Risk Reduction, Role of Environmental Knowledge, Narosa Publishing House, Delhi.
4. Murthy D.B.N. (2012) Disaster Management, Deep and Deep Publication PVT Ltd New Delhi.
5. Modh S. (2010) Managing Natural Disasters, Mac Millan publishers India LTD.

Certificate course in Video Editing

Aim: The aim of the course is to develop the knowledge & skill of Video Editing Techniques in Motion Picture Photography. Students will understand the working procedure of the Editing techniques for Motion Picture Photography (Videography) and can function either as an entrepreneur or can take up jobs in the industry.

Course Details:


Course Name	Certificate course in Video Editing
Course Co-ordinator	Dr. K.P. Yadav, Associate Professor, Dept. of Physics, COCAS, Patna.
Duration	33 Hours
Classes	1 hour each class. Maximum 6 class each week
Admission	As per Institutional rule.
Requirement	Basic knowledge of computer operating.

Objectives: The students will be able to gather the following skills:

1. Basic knowledge of Videography.
2. The techniques of script formation from a concept.
3. Understand the techniques of scene and short breakdown.
4. Understand the basics of screen technique.
5. The details about editing.
6. The practical knowledge of editing



Resource Person
RAKESH KUMAR
VEDIOGRAPHER, PATNA


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Course Structure

Sl. No	Course Content	Duration
1.	Introduction to motion picture Photography Movement of frame, movement within a frame; persistence of vision, acuity (circle of confusion), static frames perception of colour, adaptative properties.	4 hours
2.	Cinematographic properties Basic shot terminology: Close up, Mid shot, long shot, Big close up, Mid-long shot, Extreme long shot, Point of view (POV) shot, Over-the Shoulder (OTS) shot, high angle and low angle shot, top angle shot. Matching of action, Reverse angle.	4 hours
3.	Video editing Linear (insert and assemble modes); Editing equipment: Edit VTR, Edit Control Unit, Vision Mixer; Computer Graphics (C.G.) etc.; Non-linear ; Recording of audio (commentary, dubbing, music). ; Effects (visual and audio)	12 hours
4.	Film Editing Preparation of script: fiction or non-fiction; Shooting of the script in film; Edit of the rushes / footages with sound; Review and final correction.	6 hours
5.	Practical	7 hours

Learning Outcomes

Upon successful completion of the program, students will be able to understand the basic editing tools and techniques of sound and video recordings in preparation for the mastering of a television program, motion picture or web application.

Course Co-ordinator:

KPY
Dr. K. P. Yadav,
Associate Professor,
Dept. of Physics,
College of Commerce, Arts and Science, Patna.


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Department of Economics
College of Commerce, Arts & Science, Patna

Certificate Programme on
Fundamentals of Environmental Economics

Course Name: Fundamentals of Environmental Economics

Course Co-Ordinator: Dr Baikunth Roy

Assistant Professor, Department of Economics
College of Commerce, Arts & Science, Patna


Eligibility & Schedule of the Course

Potential Participants: 10+2 or its equivalent
Duration: Three Months (12 weeks)
Three classes per week tentatively
Number of Hours: 36 Hours
Mode of Learning: Hybrid Mode (Online+Offline)
No of Students: 120

Medium of Instruction of the Course: English & Hindi

Broad Outline of the Program

- Economics and environment
- Welfare and markets
- Environmental protection
- Environmental regulations


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- Environmental market behaviour

Aim of the Program

Explore the critical intersection of economics and environmental sustainability with our Environmental Economics Course in the Hybrid Mode. This comprehensive program equips you with the knowledge and tools to analyze environmental issues from an economic perspective, empowering you to contribute to a more sustainable and ecologically responsible future. In this engaging online course, you will delve into the principles, theories, and practical applications of environmental economics, addressing complex challenges facing our planet.

Expected Course Outcomes:


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

1. Discuss the environmental issues in relation to the theory of externalities, public goods, and welfare.
2. Illustrate and examine economic principles concerning the choice of instruments for controlling pollution and the relative strength and weaknesses of environmental policies based on command-and-control vis-à-vis market-based instruments.
3. Discuss various approaches and methods developed for valuing environmental goods and services.
4. Examine issues in the contemporary environmental discourse from an economists' point of view.

Course Layout

Week – 1

1. Fundamental concept of environmental economics
2. Meaning and subject matter of environmental economics
3. Nature and scope of environmental economics


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4.Key environmental issues and problems

Week – 2

5.Market failure and externalities

6.Pigouvian taxes and subsidies

7.Pareto efficiency / optimality

8.Property rights and Coase theorem

Week – 3

9. WTO and Environmental issues

10.Environmental Kuznets- Hypothesis

11.Approaches to the allocation of public goods and Tradable permits

12.Environmental quality: AIR, WATER, FOREST, LAND

Week – 4

13.non-market values and measurement methods

14.Sustainable policy approach to check environmental degradation

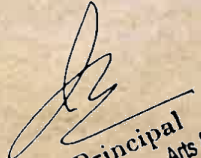
15.Cost benefit analysis of environmental regulations

Week – 5

16.Economics of Recycling and waste management

17.Sustainable development rules and principles

18.Green marketing and clean technology


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Week – 6

- 19. Poverty and environment
- 20. Land degradation and environment
- 21. Bio-Diversity conservation and environment

Week – 7

- 22. Integrated environmental and economic accounting
- 23. Role of information in the health of the Environment
- 24. Policy instruments for environmental protection

Week – 8


- 25. Environmental laws in India
- 26. Economic approach and ecological approach
- 27. India's Environmental Policy and Legislation

Week – 9

- 28. International environmental policy
- 29. Environmental Risk Analysis
- 30. Environmental pollution and policies

Week – 10

- 31. Air pollution and climate change
- 32. Pollution of water resources and their management
- 33. Deforestation and extinct of bio-diversity


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34. Economics of climate change

Week – 11

35. Inter linkages between environment and e-governance

36. Waste (e-waste) management and environmental issues

Week – 12

37. Population, human health, and environment linkages

38. Agro-Economics and Environmental Science

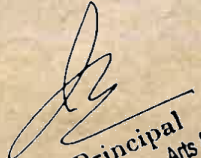
Assessment Details

The students have to mandatorily maintain 75% attendance. After that, they will be allowed to sit in the final examination. The examination will carry 100 marks. It will be a 3 hours exam. The examination paper will consist of both objective and subjective questions.

The end-semester examination would examine the students for their understanding of methods and approaches taught and their application to the range of environmental issues. The underlying emphasis would be on developing the attitude of independent thinking on contemporary environmental issues and critical evaluation of public policy for addressing environmental problems.

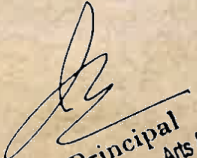
Books and references

1. J.P. Sharma, 2011. Environmental Studies. University Science Press.
2. P.D. Sharma, 2009. Ecology and Environment. Rastogi Publications.
3. Masters, Gilbert M, 2008. Introduction to Environmental Engineering and Science. PHI publication.


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4. Asthana D. K., Meera Asthana, 2019. A Textbook of Environmental Studies. S Chand & Co Ltd.
5. Shashi Motilal, Bijayalaxmi Nanda, 2006. Human Rights, Gender, and Environment Allied Publishers
6. Rajagopalan R, 2015. Environmental Studies. OUP India

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COLLEGE OF COMMERCE, ARTS & SCIENCE PATNA-20


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Certificate Course in Energy and Sustainability

INSTAGRAM POST TEMPLATE Renewable Energy




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About College

College of Commerce, Arts & science, Patna, established in 1949, recognized under Sections 2 (f) and 12 (B) of the UGC Act 1956 is a premier constituent College of Patliputra University. College was established by great visionary Late Pt. Indu Shekhar Jha on the advice of Dr. Rajendra Prasad with a pious motive to make quality education accessible for aspiring youths without any discrimination based on socio-cultural-economic grounds. The vision of its great founder Pt. Indushekhar Jha was to make the commerce education accessible to the underprivileged and subaltern students of Bihar, which was rarely available. This revered institution started its journey from a small campus where P. N. Anglo School is located now to its present campus. Flowing in the incessant flow of imparting knowledge and being exposed to the warmth of time, this institution went on incorporating many streams in itself and today in this college education is imparted in the faculties of Sciences, Social Sciences, Commerce, Humanities and Law up to postgraduate levels. It is one of the oldest academic institutions located in the heart of the capital of Bihar, Patna. The College is situated in the exclusive neighborhood of Rajendra Nagar Railway Terminal and inhabits a 5.89-acre plot campus. The lush green landscape invites an aesthetic charmer and enhances the College atmosphere to an educational eden.

About the Course

Climate change is an urgent global challenge demanding engineering solutions and large-scale, systems-oriented coordination. In Sustainable Energy, you will join thousands of global learners in examining conventional and renewable energy generation technologies, studying how they are deployed throughout the world, and evaluating their roles in the future energy landscape. Technologies include solar power, wind power, storage, nuclear power, hydropower, and bioenergy.

In addition to technological components, you'll become familiar with the economic, political, and social dimensions of energy project planning.

Course Objectives

This course provides an introductory overview of the present energy systems and takes a brief look at where the world may find energy in the future – cleaner use of fossil fuels or renewable energy sources?

Course Outcome

After studying this course, you will be able to:

- understand and be aware of the importance of sustainable energy
- demonstrate an overview of the main sources of renewable energy

Mode of Learning

Hybrid

Online: Google Meet

Offline Class Room: Physics Department Smart Lecture Hall


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Schedule of Course

Two batches in every academic session
1st August to 30th November & 15th January to 15th May
Total Week: - 16 Weeks (40 Hours)

How can you apply for this course ?

All candidates are advised to contact course coordinator for admission. Only first-cum-first serve basis is allowed for application. Any students from our college already enrolled under any course can apply for this course.

Syllabus

Week 1-2: Introduction to Energy and Sustainability

Understanding sustainability and its importance
Energy's role in sustainable development
Key sustainability goals and challenges

Week 3-4: Energy Sources and Environmental Impact

Fossil fuels, renewable energy, and their environmental implications
Transitioning to sustainable energy sources
Energy efficiency and conservation

Week 5-6: Renewable Energy Technologies

Solar power
Wind energy
Hydropower
Geothermal energy
Biomass and bioenergy

Week 7-8: Sustainable Transportation

Electric vehicles
Public transportation and urban planning
Sustainable fuels
Transportation efficiency and emissions reduction

Week 9-10: Energy Policy and Regulation

Government policies and incentives
Global agreements (e.g., Paris Agreement)
Energy markets and pricing
Regulatory bodies and their roles


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Week 11-12: Energy and Corporate Sustainability

Corporate social responsibility

Sustainable supply chains

Sustainability reporting and accountability

Case studies of sustainable business practices

Week 13-14: Energy Efficiency in Buildings

Green building design and construction

Energy-efficient appliances and technologies

Sustainable architecture and urban planning

Week 15: Final Projects and Presentations


Students present their research or projects related to energy and sustainability.

Assessment:

Quizzes and assignments

Class participation

Group project on a renewable energy system design or feasibility study



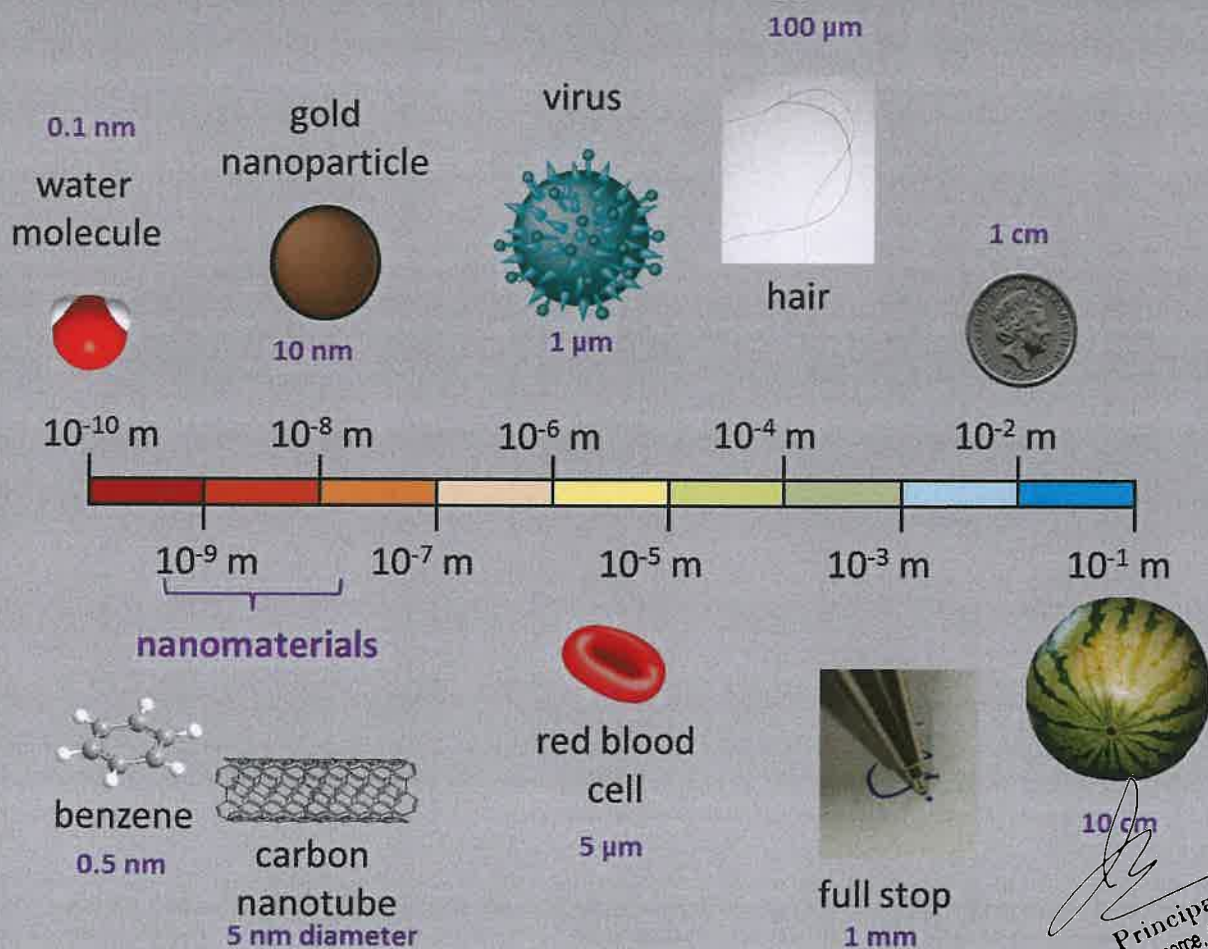
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Certificate Course in Nanotechnology



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About College

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About the Course

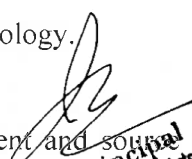
Nanotechnology is broad interdisciplinary areas that encompass (bio)chemistry, physics, biology, materials science, electrical engineering and more. The present course will provide a survey on some of the fundamental principles behind nanotechnology and nanomaterials and their vital role in novel sensing properties and applications. The course will discuss interesting interdisciplinary scientific and engineering knowledge at the nanoscale to understand fundamental physical differences at the nanoscale.

Course Objectives

The course main objective is to enhance critical, creative, and innovative thinking. The course encourages multicultural group work, constructing international 'thinking tanks' for the creation of new ideas. Throughout the course, you will be asked to reflect upon your learning, think "out of the box", and suggest creative ideas.

Course Outcome

1. Apply principles of basic science concepts in understanding, analysis and prediction of matter at Nano scale.
2. To introduce interdisciplinary subjects/concepts/ideas for interdisciplinary application of science and engineering concepts.
3. To introduce advanced ideas and techniques required in emergent area of nanotechnology.
4. Engage in lifelong learning and adapt to changing professional and societal needs.
5. A student will be able to consider nanotechnology as a means of self-employment and source of income.


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Mode of Learning

Hybrid

Online: Google Meet

Offline Class Room: Physics Department Smart Lecture Hall

Schedule of Course

Three batches in every academic session

Total Duration: - 32 Hours

How can you apply for this course ?

All candidates are advised to contact course coordinator for admission. Only first- cum -first serve basis is allowed for application. Any students from our college already enrolled under any course can apply for this course.

Syllabus

Week 1: Introduction to Nanotechnology

Overview of nanoscale science and engineering

Historical perspective and key milestones

Interdisciplinary nature of nanotechnology

Week 2: Nanomaterials

Properties and synthesis of nanomaterials

Characterization techniques: TEM, SEM, AFM, XRD

Applications of nanomaterials in industry

Week 3: Nanofabrication Techniques

Top-down and bottom-up fabrication approaches

Photolithography, electron beam lithography, and nanoimprint lithography

Chemical vapor deposition, atomic layer deposition, and self-assembly

Week 4: Nanoelectronics

Introduction to nanoelectronics and Moore's Law

Nanoscale transistors and their limitations

Emerging nanoelectronic devices (e.g., memristors, quantum dots)


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Week 5: Nanophotonics and Plasmonics

Basics of light-matter interactions at the nanoscale

Nanophotonic devices: waveguides, sensors, and modulators

Plasmonics for enhanced light-matter interactions

Week 6: Nanomagnetism

Magnetic nanoparticles and their applications

Magnetic data storage and spintronics

Magnetic nanoparticles in biomedicine

Week 7: Nanobiotechnology

Nanomaterials in biological and medical applications

Drug delivery systems and theranostics

Ethical considerations in nanobiotechnology

Week 8: Nanotechnology in Energy

Nanomaterials for energy storage and conversion

Solar cells, batteries, and fuel cells

Environmental implications of nanotechnology

Week 9: Nanosafety and Regulation

Health and safety considerations when working with nanomaterials

Regulatory frameworks for nanotechnology

Risk assessment and mitigation strategies

Week 10: Nanotechnology Entrepreneurship

Startups and commercialization in nanotechnology

Business models and funding opportunities

Intellectual property and patents

Week 11: Future Trends in Nanotechnology

Quantum nanotechnology and quantum computing

Nanorobotics and molecular machines

Ethical, societal, and environmental implications of future nanotech

Week 12: Capstone Project

Students work on a small-scale nanotechnology project or case study, applying the knowledge and skills gained throughout the course.


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Assessment:

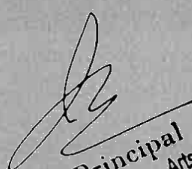
Quizzes and assignments

Class participation

Group project on a renewable energy system design or feasibility study

Why you should Join the Course?

Nanotechnology is the study of controlling matter on a nuclear, atomic and supramolecular scale. The field of **Nanotechnology** is very diverse that includes new methodologies dependent on sub-atomic self-gathering, control of the issue on a nuclear scale, and advancement of new materials with measurements on the Nanoscale. The study of **Nanotechnology** involves the utilization of various fields of science. Such fields include organic chemistry, microfabrication, molecular biology, atomic science, surface science, and semiconductor material science. The ones who mean to have a career where they get the opportunity to leap forward in advancement in the field of science need to look no further as **Nanotechnology** is the eventual fate of science.


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Internal Quality Assurance Cell
Organizing a Certificate Course in

“Personality Development”

Patron

Prof. Tapan Kumar Shandilya

Principal

IQAC Co-ordinator


Dr. Santosh Kumar

Associate Professor

Course Co-ordinator

Dr. Vandana Maurya

Assistant Professor


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Course Description:


Every individual possesses a unique set of traits and characteristics, which remains stable overtime. This uniqueness and consistency forms the aspects of personality. It is the stability of these characteristics that sometimes assist in predicting behaviour of a given person. There are many factors like biological characteristics, family and social groups, cultural and social factor, which contributes towards the formation of personality. An individual can be manifested in various forms like authoritarian personality, bureaucratic personality, and Machiavellian personality, etc. There are many theories that are developed in predicting the behaviour of an individual on the basis of various attributes. Some tests are also designed to assess the personality of an individual. On the other hand, good communication is vital to any institution's successful operation and equally imperative for a man's personality development. Therefore, combined with the convincing evidence that most organizational communication is inadequate, leads to yet another conclusion: that communication is an area that deserves further study by those concerned with improving organizational operations. Two-way communication is more effective than one-way communication. The feedback allows the sender to refine his communication so that it becomes more precise and accurate. Receivers' self-confidence is higher in case of two-way communication as they are permitted to ask questions and seek clarification from the senders. Hence, in this course, the theories and practices would be deliberated.

Duration:

45-hour course (2 hours each session, six days a week).

Objectives:

1. Exposing participants to the fundamentals of personality development and communication skills practices.
2. Building in confidence and capability amongst the participants with regard to personality development and communication skills.
3. Providing exposure to practical problems and their solutions, through case studies and live projects in personality development process and communication skills.


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4. Enhancing the capability of the participants to identify, control and improve personality development indicators and enhanced communication skill.

Course outcomes:

- Understanding the origin and development of personality.
- Managing better physical and mental health.
- Learn to manage optimal performance.
- Learn to manage work-life Balance.
- Better relationships with family and friends and soft skills utilization.
- Learning self-care through lifestyle changes.
- Acquiring life skills and preparing for a better future by reducing the stress.

Certification:

Upon successful completion of this course, participants will be issued with a certificate.

Course Content:

UNIT I Introduction to Personality Development

The concept of personality - Dimensions of personality – Theories of Freud & Erickson- Significance of personality development. The concept of success and failure: What is success? - Hurdles in achieving success - Overcoming hurdles - Factors responsible for success – What is failure - Causes of failure. SWOT analysis.

UNIT II Attitude & Motivation

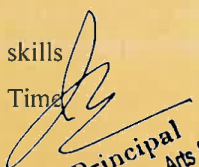
Attitude - Concept - Significance - Factors affecting attitudes - Positive attitude – Advantages – Negative attitude- Disadvantages - Ways to develop positive attitude - Differences between personalities having positive and negative attitude. Concept of motivation - Significance – Internal and external motives - Importance of self- motivation- Factors leading to demotivation

UNIT III Self-esteem

Term self-esteem - Symptoms - Advantages - Do's and Don'ts to develop positive self-esteem – Low self- esteem - Symptoms - Personality having low self-esteem - Positive and negative self-esteem. Interpersonal Relationships – Defining the difference between aggressive, submissive and assertive behaviours - Lateral thinking.

UNIT IV Other Aspects of Personality Development

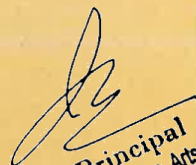
Body language - Problem-solving - Conflict and Stress Management - Decision-making skills - Leadership and qualities of a successful leader – Character building -Team-work – Time


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management - Work ethics –Good manners and etiquette.

UNIT V Employability Quotient

Resume building- The art of participating in Group Discussion – Facing the Personal (HR & Technical) Interview -Frequently Asked Questions - Psychometric Analysis - Mock Interview Sessions.



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Certificate Course in Communicative English

Objectives

- To develop communicative competence in the students
- To expose the students to the employment opportunities challenges and job roles
- To develop and integrate the use of four language skills i.e. listening, speaking, reading and writing
- To encourage students to use English in their day to day life

Learning outcomes

After completion of the course the student should be able to:

- Express ideas in clear and grammatically correct English without hesitation
- Develop their personality.
- Acquire confidence to speak fluently and write correctly in formal and informal situations.

Course Module:

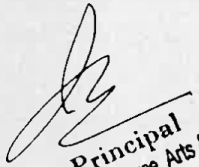
Unit 1 (10 Hrs)

- **Communication**
 - definition and major types of communication
 - process of communication
 - characteristics of effective communication
 - barriers of communication

Unit 2 (11 Hrs)

- **Grammar and its usage**
 - sentence structure
 - subject verb agreement
 - time and tense
 - articles
 - Prepositions

Unit 3 (11 Hrs)


Principal
College of Commerce, Arts & Science
Patna- 800020

- **Reading and Writing Competence**


- Reading Comprehension: Identifying main ideas drawing inferences& summarizing
- Precis Writing
- Application and letter writing
- Formal email
- Resume /C.V

Suggested readings

- *A practical English grammar* - A.J. Thomson, A.V. Martinet - Oxford University press.
- *A handbook of English grammar and Usage* - D Thakur - Bharti Bhawan Publications.
- *Communicative English* - E. Suresh Kumar and P. Sreehari - Orient Blackswan .
- *Writing with a Purpose* - C. Tickoo and J. Sasi Kumar - Oxford University press.

For Admission Details Contact:

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