



Government of West Bengal

BARASAT GOVERNMENT COLLEGE, ESTD. 1950

Post Graduate Department of Physics

10. K.N.C Road, Barasat, Kolkata- 700 124

West Bengal, India

Phone: +91 033 2552 3365

FAX: +91 033 2562 5053

E.mail: pgphysicsbgc2022@gmail.com

URL: www.bgc.ac.in

NAAC ACCREDITED 'A' GRADE & DST-FIST SPONSORED COLLEGE

15.04.2024

Be it for information of all concerned that the Department of Physics is going to organize a Value Added Course on "Role of Thermodynamics on the Evolution and Modernization of the Human Society" on and from 13th May to 18th May 2024 at the Department of Physics.

Interested students and other faculty members are asked to register themselves for the Course which is a free course. They are requested to contact the Head of the Department of Physics within 11th May 2024 [upto 2 pm].

Mention may be made that the registered candidates should try their best to attend all the classes without fail.

Participation certificate will be provided after successful completion of the course.

For further enquiry they may contact the faculty members.

Countersigned

Principal

Barasat Government College

Principal
Barasat Government College

Course Co-ordinator

Department of Physics

Barasat Government College

Dr. Dhananjay Roy
Associate Professor
Deptt. of Physics
Barasat Govt. College



Value Added Course on

Role of Thermodynamics on the Evolution and Modernization of the Human Society

Course Code: VAC/BGC/PHYS/2024/01

Duration: 13th May 2024 to 18th May 2024

Learning Objectives: This programme is framed to provide a comprehensive understanding of contemporary perspective of the “**Role of Thermodynamics on the Evolution and Modernization of the Human Society**” **Learning Outcomes:** After successful completion of the course the students will – get an in-depth understanding of different aspects, model and appreciate concepts of thermodynamics and its application in real lives.

- To learn the fundamental laws of thermodynamics.
- To learn the fundamental models for the energy conversion phenomenon.
- To learn the appropriate experiments related to heat engines.
- To learn and investigate the effectiveness of energy conversion process in mechanical power generation for the benefit of mankind.
- To learn the importance of heat energy in our daily lives and so feel the necessity of conservation of energy.

On successful participation, attendance and on completion of all the evaluation assignments the participants will get a certificate.

Nature and Duration: This value-added course is a certificate programme. Total Contact Hours will be 34.

How to Apply: Application forms are available to the Office of the Head of the Department of Physics, Barasat Government College.

Candidates can also apply through online using the following link:

https://docs.google.com/forms/d/1ePeOy5qnvxx12f6U2_Fo0SKobCarkiz-sQqRn05SI0w/prefill

Target Participants: College and University students. Job aspiring candidates who have completed their Bachelor's or Master's level study within the last 5 years may also apply.

Processing Fee: There is no course fee.

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Mode of teaching: Entire process of teaching, learning and evaluation for the programme will be conducted in the offline mode.

Faculty: The programme modules will be taught by experienced faculty members (teachers) of this college.

Intake Capacity: Maximum intake capacity is 40 with a minimum cut-off number of 10 candidates. Candidates will be selected on a first come first serve basis.

Programme Structure:

1. Classroom lectures by Expert Professors on the said topic.
2. Outcome Test and Evaluation.
3. Certificate distribution.

Mode of Evaluation: The evaluation process will be carried out throughout the programme duration by a combination of the following methods.

- Attendance (20% weightage).
- Internal Assessment (30% weightage).
- Objective assessment (50% weightage).

Evaluation of the performance of the student based on a total of 50 marks will be rated as shown in the following table.

Grade	% Marks Obtained
O	> 90
A +	80 - 89
A	70 - 79
B +	60 - 69
B	40 - 59
Fail	< 40

Attendance and Award of Certificate: Candidates have to attend 80% of the sessions, as a part of duty. Failing which certificate will not be awarded. Candidates are required to engage themselves actively in the discussion and academic interaction with the resource persons and co-participants. Participants scoring minimum of 40% marks and 80% attendance will be given certificates of completion.

Important Dates:

Application starts on: 15.04.2024

Application ends on: 11.05.2024

Course starts on: 13.05.2024

VALUE ADDED COURSE ON
“ROLE OF THERMODYNAMICS ON THE EVOLUTION AND MODERNISATION OF THE HUMAN SOCIETY”

COURSE CODE: VAC/BGC/PHYS/2024/01

13 – 18 MAY, 2024

ORGANIZED BY

DEPARTMENT OF PHYSICS

BARASAT GOVERNMENT COLLEGE

Programme Schedule

Date	Time	Topic	Resource Person Name	Resource Person Designation
Day 1				
13.05.2024 Monday	10:30 – 12.00	Inauguration	Dr. Samar Chattopadhyay Dr. Pritam Bandopadhyay Dr. Abhijit De	Principal Barasat Government College Head & Associate Professor of English, Teachers’ Council Secretary Barasat Government College Associate Professor of Physics, IQAC Coordinator Barasat Government College
	12:00 – 13.30	Introduction to the Course	Dr. Abhijit De	Associate Professor of Physics Barasat Government College
	13:30 - 14:00	TIFFIN BREAK		
	14:00 – 15:30	Lives and Heat	Dr. Dhananjoy Roy	Associate Professor of Physics Barasat Government College
	15:30 – 17:00	Laws of Thermodynamics	Dr. Ajita Sengupta	Associate Professor of Physics Barasat Government College
Day 2				
	10:30 – 12.00	Thermal effects on performance of Devices	Dr. Madhusudan Ghosh	Associate Professor of Physics Barasat Government College
	12:00 - 13:30	Thermo dynamical Global Domains	Dr. Sudip Mukherjee	Assistant Professor in Physics

Date	Time	Topic	Resource Person Name	Resource Person Designation
14.05.2024 Tuesday				Barasat Government College
	13:30 - 14:00	TIFFIN BREAK		
	14:00 – 15:30	Global Warming	Dr.Uttam Kumar Sinha Mahapatra	Associate Professor in Physics Barasat Government College
	15:30 – 17:00	Roll of Heat in behaviour of materials	Dr. Shilbhadra Chattopadhyay (Ex)	Associate Professor of Physics Barasat Government College
Day 3				
15.05.2024 Wednesday	10:30 – 12.00	Heat and Biological system	Dr. Dhananjoy Roy	Associate Professor of Physics Barasat Government College
	12:00 - 13:30	Thermal equilibrium amongst systems	Dr. Sarajit Biswas	Assistant Professor in Physics Barasat Government College
	13:30 - 14:00	TIFFIN BREAK		
	14:00 – 15:30	Carnot cycle and Heat Engines	Dr. Srijit Bhattacharya	Associate Professor in Physics Barasat Government College
	15:30 – 17:00	Measurement of Heat	Dr. Madhusudan Ghosh	Associate Professor of Physics Barasat Government College
Day 4				
16.05.2024 Thursday	10:30 – 12.00	Kinetic theory of Gases	Dr. Samar Chattopadhyay	Principal Barasat Government College
	12:00 - 13:30	Sources of Heats: Prime sources is SUN	Dr. Shilbhadra Chattopadhyay (Ex)	Associate Professor of Physics Barasat Government College
	13:30 - 14:00	TIFFIN BREAK		
	14:00 – 15:30	Entropy	Dr. Ajita Sengupta	Associate Professor in Physics Barasat Government College
	15:30 – 17:00	Tropical Diseases	Dr. Uttam Kumar Sinha Mahapatra	Associate Professor of Physics Barasat Government College
Day 5				
17.05.2024 Friday	10:30 – 12.00	Micro Ecosystems	Dr. Sudip Mukherjee	Assistant Professor in Physics Barasat Government College
	12:00 - 13:30	Adverse effects of Heat	Dr. Madhusudan Ghosh	Associate Professor in Physics Barasat Government College
	14:00 - 14:30	TIFFIN BREAK		
	14:00 – 15:30	Heat Engines	Dr. Srijit Bhattacharya	Associate Professor of Physics Barasat Government College

Date	Time	Topic	Resource Person Name	Resource Person Designation
	15:30 – 17:00	Transportation of Heat	Sri Sarajit Biswas	Assistant Professor in Physics Barasat Government College
Day 6				
18.05.2024 Saturday	10:30 – 13.00	Outcome Test Examination and Evaluation	Dr. Shilbhadra Chattopadhyay(Ex), Dr. Srijit Bhattacharya, Dr.Uttam Kumar Sinha Mahapatra	Associate Professors of Physics Barasat Government College
	13:00 - 14:00	Certificate Distribution	Dr. Madhusudan Ghosh, Dr. Dhananjoy Roy	Associate Professors of Physics Barasat Government College
	14:00 - 14:30	TIFFIN BREAK		
	14:30 – 15:00	Valedictory and Vote of Thanks	Dr.Abhijit De	Associate Professor of Physics Barasat Government College

Note: This is a tentative programme schedule which is subject to change depending on the situation.