



SCHOOL OF BASIC SCIENCES

CSJM University Kanpur INFORMATION BROCHURE

Admission Open for 2024-25



UG Courses	PG Courses
B.Sc. (Hons.) Physics	M.Sc. (Physics)
B.Sc. (Hons.) Chemistry	M.Sc. (Chemistry)
B.Sc. (Hons.) Mathematics	M.Sc. (Mathematics)
B.Sc. Combination 1. Phy, Chem, Maths-PCM 2. Phy, Chem, Geography-PCG 3. Phy, Chem, Comp Applicaion.-PCCA 4. Phy, Maths. Geography-PMG 5. Phy, Maths, Comp Application.-PMCA 6. Chem, Maths. Geography-CMG 7. Chem, Maths, Comp Application.-CMCA 8. Phy, Maths, Statistics- PMS (New)	M.Sc. (Industrial Chemistry)
	M.A/M.Sc(Geography)
	PhD in Physics, Chemistry, Mathematics and Geography in CSJMU campus

Salient Features

- ▶ Harish Chandra Research Centre of excellence in Advance Mathematics and Computing
- ▶ Excellent Chemistry Research Laboratories
- ▶ Smart classes
- ▶ Students are pursuing internship at IITs, DMSRDE, NIT and at various reputed Industries
- ▶ Students are pursuing their M.Sc. Projects at Shiksha Sopan IIT Kanpur under the supervision of Padma Shri Professor H.C. Verma
- ▶ Excellent opportunities to participate in workshops related to VEDIC Mathematics, Data Science and Machine learning, Remote Sensing etc.
- ▶ Collaborative Research with IITs, IISER Mohali, DMSRDE, MNIT, NIT etc.
- ▶ Faculty are pursuing DST and CV-Raman Projects
- ▶ Very strong research environment in Physics, chemistry and mathematics
- ▶ Students placement in many Higher education institutions, Industries,
- ▶ All the faculty members are well qualified Ph.D holders from reputed Institutes/Universities



ABOUT THE SCHOOL

School of Basic Sciences is one of the indispensable Schools of the University. It imparts excellent quality education in the area of Physics, Chemistry & Mathematics. Department of Physics Chemistry and Maths has been established in the year 1996 in the university institute of Engineering and technology, UIET, CSJM university. Now, these departments are the part of School of Basic Sciences due to broad vision of our respected Vice Chancellor Prof. Vinay Kumar Pathak. Under his supervision, the School of Basic sciences is committed to impart quality education to the students. The School offers Undergraduate, Post Graduate and a Doctoral degree on full time basis. Industrial Visits, Trainings and Projects are an integral part of the courses offered by School of Basic Sciences. The course has been designed to acquaint students with an advanced knowledge of areas of Physics, Chemistry & Mathematics. Today's world needs people who understand science and the contribution it makes to society. Basic Science is the science of applying knowledge from one or more natural scientific fields to practical problems. The study of basic science at our University will provide you with not only a broad understanding of a variety of scientific principles but also the skill to apply your knowledge to solve problems and provide solutions to a variety of situations. School has embarked on continual upgrading of its facilities; all these are in line with our desire to train holistic scientists that make positive contribution not only to our nation but also to the whole of mankind. Working toward this goal, the School has Director Prof. R.K Dwivedi.. Under the valuable guidance of our director, the School of Basic Sciences will be flourish. And there are 22 dedicated faculty members actively involved in teaching and research. Well established laboratories help in fostering the spirit of research and motivate the students to learn beyond the syllabus and understand the symbiotic relationship between science and technology. The present faculty members are actively engaged, besides their teaching program, in pursuing research in frontier areas of Physics, Chemistry, Mathematics and Inter-Disciplinary Sciences. Our faculty members have published many national and international publications. The department has successfully completed more than 10 projects under the sponsorship of CSIR, DST, UGC, ISRO, etc.

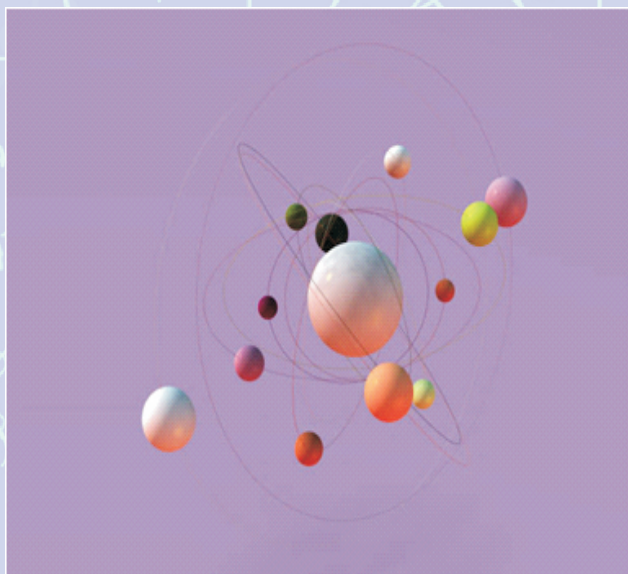


Vision

To build and lay a sound foundation for excellence and encourage the students for development of the school as a premier Institution by igniting and promoting enthusiasm, interests and passion, in the study of Basic Science.

Mission:

1. To awaken the young minds and discover their talents both in theory and in practical Basic Science, through dedication to teach, commitment towards students and innovative instructional methods like PPT & Visual Aids.
2. To provide a platform to keep abreast with current developments in Science.
3. To make vital contributions in areas such as faculty, modern labs, and demonstrate a high level of competence in the study of Basic Science.
4. To organize and sustain efficient operating systems in the School of Basic Sciences for realization of our objectives as Institution of eminence and International standards.
5. To make our students skilled, entrepreneur with ethical values
To involve in projects leading to a good quality research



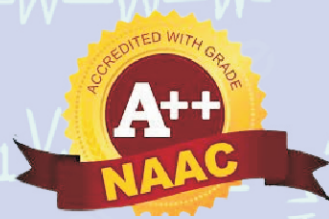


MESSAGE FROM VICE CHANCELLOR'S DESK



Prof. Vinay Kumar Pathak

It is a matter of immense pleasure for me to be a part of the Chhatrapati Shahu Ji Maharaj University as its vice chancellor. I take this opportunity of welcoming students coming from all parts of the world, joining the university in undergraduate as well as postgraduate programs. Most of such students have moved away from the folds of their family and nation to another in their quest of knowledge. One needs to feel that they are just moving away from one family fold to another. Their teachers, seniors and peers, all form an extended family from whom they can look up for any guidance, support and help to move ahead in life as professionals in the study programs they have opted. The university has highly qualified faculty in their respective fields of expertise. A large number of national and international conferences, seminars and workshops are organized by the university. Such events provide a variety of experiences to the students and inculcate skills such as leadership and team spirit which are helpful in their career. Our faculty members have been able to publish good quality research work in high impact factor journals of repute. There is an active interaction between faculty and students in the campus. The learning experiences in the campus pave a strong path for enhancement of overall development of the learners. Further, the campus of the university is ICT enabled and the schools provide an e-learning and e-connect environment, along with class coordination system, document management system as well as virtual class rooms. The university is situated in a serene environment. The serenity along with a complex structure of curricular, co-curricular and extra-curricular activities will shape your physical, mental and intellectual growth. I wish and assure you, on behalf of the university family, that we will help you pursue your objectives of life under the varied social, cultural and economic environment and make the university family proud of your attainments.



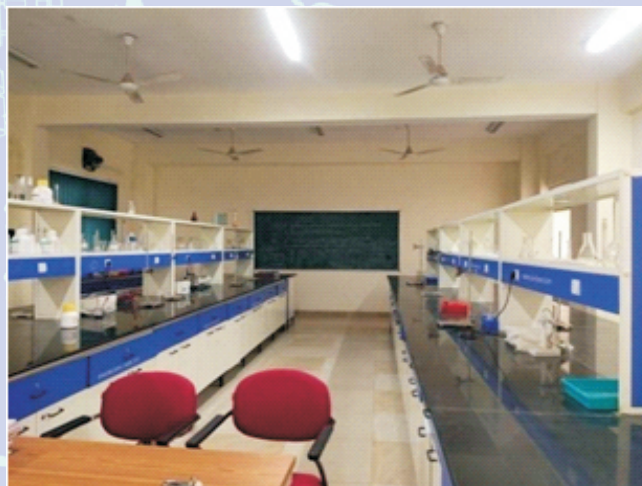
Laboratories and Infrastructure

Both Physics and Chemistry Laboratories are well equipped and organized. The Physics laboratories are supported by following modern well equipped labs;

- * Mechanical Lab
- * Optics Lab
- * Electricity- Magnetism Lab



Chemistry Laboratories





About the Faculty

Department of Physics, School of Basic sciences Prof. R.K.Dwivedi, Director, School of Basic Sciences and CDC

1.	Dr. Anju Dixit, Deputy Director	Assistant Professor, Ph.D. (University of Puerto Rico, San Juan, USA) Specialization: Electronics Area of Research: Condensed Matter Physics
2.	Dr. Sashwati Sarkar	Assistant Professor Ph. D. (Visva Bharti University) Specialization: Particle Physics Area of Research: Elementary Particle Physics
3.	Dr. Ram Janma	Assistant Professor Ph. D. (RGNF, JRF & SRF) Specialization: Solid State Physics Area of Research: Fiber Optics Communication & Optical Waveguide
4.	Dr. Prabal Pratap Singh	Assistant Professor Ph.D & NET (CSIR) Specialization: Solid State Physics Area of Research: Optical properties of layered media & Photonics Crystals
5.	Dr. Shikha Shukla	Assistant Professor Ph. D. (CSJM University, Kanpur) Specialization: Electronics Area of Research: Amorphous Semiconductors
6.	Dr. Ritika Solanki	Assistant Professor Ph.D. (IIT BHU, Varanasi) Specialization: Electronics Area of Research : Solar Astrophysics
7.	Dr. Awanish Kumar Bajpeyi Coordinator	Assistant Professor, NET, CSIR Ph.D. (Rajiv Gandhi Institute of Petroleum Technology, Amethi) Specialization: Electronics Area of Research : Nuclear Astrophysics



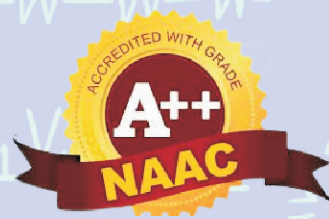
Department of Chemistry, School of Basic sciences

8.	Dr. B.P. Singh	Assistant Professor Ph.D. Banaras Hindu University, Varanasi, India Specialization: Organic Chemistry Area of Research: Organic Chemistry/Materials Chemistry/ Natural Products
9.	Dr. Rashmi Dubey	Assistant Professor, Ph.D. C.S.J.M. University, Kanpur Specialization: Organic Chemistry Area of Research: Polymer
10.	Dr. Ratna Shukla	Assistant Professor, Ph.D. HBTU, Kanpur Specialization: Physical Chemistry Area of Research: Chemical Kinetics
11.	Dr. P.S. Niranjana	Assistant Professor, Ph.D. from AKTU Specialization: Inter penetrating polymer network Area of Research: Polymer-Surfactant interaction
12.	Dr. Meraj Jafri, Deputy Coordinator	Assistant Professor, Ph.D. from AKTU Specialization: Interpenetrating polymer network Area of Research: Polymer
13.	Dr. Dhananjay Dey, Coordinator	Assistant Professor, Ph.D. from NII Durgapur Specialization: Chemistry (Hons.) Area of Research: Inorganic chemistry and Organometallic Chemistry



Department of Chemistry, School of Basic sciences

14.	Dr. Varsha Gupta	Associate Professor Ph.D. (IIT Kanpur) Area of Research: Numerical Analysis
15.	Dr. D.K. Singh	Assistant Professor Ph.D. (Dr. R.M.L. Avadh University, Faizabad) Area of Research: Fractional Calculus, Special Function, Partial Fractional differential equations
16.	Dr. Poonam Dixit	Assistant Professor Ph.D. (C.S.J.M. University, Kanpur) Area of Research: Complex Variables.
17.	Dr. P.N. Pathak, Deputy Coordinator	Assistant Professor Area of Research: Distribution Theory
18.	Dr. Sandeep Porwal	Assistant Professor Area of Research: Operation Research
19.	Dr. Izhar Ali Khan	Assistant Professor Area of Research: Functional Analysis
20.	Dr. Raghwendra Singh	Assistant Professor Area of Research: Non-Linear wave in gas dynamics
21.	Dr. Namita Tewari, Coordinator	Assistant Professor Area of Research: Cryptography
22.	Dr. Durgesh Singh (Geography)	Assistant Professor Area of Research: Water Management and Physical Geography



Alumni Students Placement

Name	Department	Placed
Yash Varshney	Chemistry	Patanjali Research Institute, Haridwar
Mansi Kaserey	Chemistry	Patanjali Foodand Herbal Park, Haridwar
Vani Sharma	Chemistry	Novozyme Pvt Ltd, Bengaluru
Aman Rajput	Chemistry	Sun Pharma, Bengaluru
Anchal Tyagi	Chemistry	Novozyme Pvt. Ltd. Bengaluru
Rohit Maurya	Chemistry	Nestle, Punjab
Nitin Kumar	Chemistry	Mankind, Kanpur
Akhtar Khan	Chemistry	Unimark Healthcare Ltd. Haridwar
Vikash Mishra	Chemistry	Sugar Industry, Dhampur
Saurabh Kumar	Chemistry	Akums Pharmaceuticals, Haridwar
Himanshu Chauhan	Chemistry	Tikuala Sugar mill Ltd., Muzaffar Nagar
Dr. Jitendra Singh	Mathematics	Assistant Professor, Department of Mathematics, BHU
Dr. Sunil Kumar Kamal	Mathematics	Associate Professor and Head, Department of Mathematics, NIT, Jamshedpur
Dr. Mahendra Pratap Singh	Physics	Assistant Professor, Department of Physics, DBS College Kanpur
Dr. SonuVishwkarma	Physics	Research Associate, Rajasthan Central University

Our Alumni students are well placed in Industries, Government Intermediate and Degree colleges, IITS and NITS.



Research Innovations

1. Workshops on Vedic Ganit, Data Science and machine learning, Chemistry in daily life etc. are organized each year.
2. Conferences and seminars by eminent speakers are organized to enhance research activities and collaborations.
3. Faculty members are actively engage in various projects like DST, CV Raman etc. and contributing significant publications.
4. Inter-college Quizzes are Organized.
5. Science model competitions are organized often to enhance students creativity towards science & technology



M.Sc. Physics Project at Shiksha Sopan IIT Kanpur



Students Visit at IIT research lab and at different Laboratories and Industries



National/International Collaborations

Collaborating Institutes

The Indian Academy of Sciences, Bengaluru

Official Nodal Center of Virtual Laboratories at Indian Institute of Technology Kanpur

Quest Academics Pvt. Limited Sir Padam Pat Singhania Education Center, Kanpur

DMSRDE, Kanpur

MNIT, Allahabad

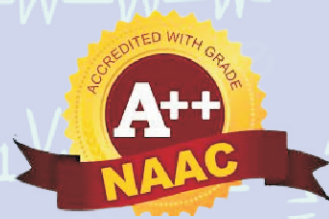
IISER, Mohali

Department of Physics, San Juan, University of Puerto Rico, USA



School of Basic Sciences proposes following courses indifferent streams of Basic Sciences from the academic session 2024-2025

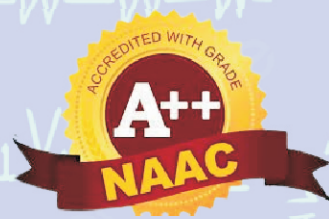
S.No.	Name of the Course	Duration	Eligibility Criteria	Fees
1.	B.Sc. (Hons.) Physics-30 seats B.Sc. (Hons.) Chemistry-30 seats B.Sc. (Hons.) Mathematics-40 seats	Three Year	Passed 12th class examination with Physics, Chemistry, Maths	34,200/-
2.	B.Sc in Seven Combinations-240 seats 1. Phy, Chem, Maths-PCM 2. Phy, Chem, Geog-PCG 3. Phy, Chem, Comp Appl.-PCCA 4. Phy, Maths. Geog-PMG 5. Phy, Maths, Comp Appl.-PMCA 6. Chem, Maths. Geog-CMG 7. Chem, Maths, Comp Appl-CMCA 8. Phy, Maths, Statistics-PMS (New)	Three Year	Passed 12th class examination with Physics, Chemistry, Maths	2.25,200/-
3.	M.Sc (Physics)-15 seats	Two Year	Passed B.Sc examination with Physics	29,200/-
4.	M.Sc (Chemistry)-15 seats M.Sc (Industrial Chemistry)-15 seats	Two Year	Passed B.Sc examination with Chemistry	29,200/-
5.	M.Sc (Mathematics)-15 seats	Two Year	Passed B.Sc examination with, Maths	29,200/-
6.	M.A/M.ScGeography -30 each	Two Year	Passed B.Sc examination with Geography	15,200/-



Contact Details

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Dr. Awanish Kumar Bajpeyi Coordinator, Department of Physics, School of Basic Sciences	8934875519	awanish@csjmu.ac.in
Dr. Durgesh Singh Geography	7007067835	durgesh70582@gmail.com

Website : You can visit the following link to know more about the school of Basic Science.
School of Basic Science | Chhatrapati Shahu ji Maharaj University, Kanpur (csjmu.ac.in)



Conference Workshops, Seminar at School of Basic Sciences



Prof. Shalabh, IIT Kanpur
Vedic Gaint Workshop

Prof. R. Vijaya, IIT Kanpur
Prof. Y.N Mohapatra, IIT Kanpur
National Science Day Workshop



Padma Shri Prof. Manindra Agarwal IIT Kanpur
Prof. CS Arvinda, IIFR, Bangaluru
Harish Chandra Legacy Celebration

Padma Shri Prof. H.C. Verma, IIT kanpur
Science Refresher Course



Padam Shri Prof. R.C Gupta
Ramanujan Legacy Week Celebration

DMSRDE Scientist
Ozone Day Celebration