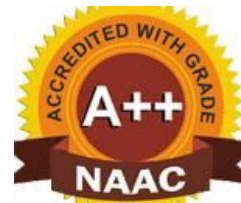




**SCHOOL OF BASIC SCIENCES**  
**CSJM University Kanpur**  
**INFORMATION BROCHURE**  
**Admission Open for 2025-26**



UG Courses	PG Courses
6 Month Certificate course in Vedic Mathematics <b>(New)</b>	M.Sc. ( Physics)
B.Sc. ( Hons. ) Physics	M.Sc. ( Chemistry )
B.Sc. ( Hons. ) Chemistry	M.Sc.( Mathematics)
B.Sc. ( Hons. ) Mathematics	M.Sc. (Industrial Chemistry )
<b>B.Sc.Combination</b>	M.A ( Geography )
1. Phy, Chem, Maths-PCM	M.Sc. ( Environmental Sciences & Technology )
2. Phy, Chem, Geography-PCG	M.Sc. in Mathematics with Artificial Intelligence & Data Science <b>(New)</b>
3. Phy, Chem, Comp Applicaion.-PCCA	M.Sc.in Geography with specialization in GIS and remote sensing <b>(New)</b>
4. Phy, Maths. Geography-PMG	M.Sc. in Environment Science with specialization in Sustainability and Governance <b>(New )</b>
5. Phy, Maths, Comp Application.-PMCA	M.Sc. in Chemistry with specialization in Fragrance & Flavour chemistry <b>(New )</b>
6. Chem, Maths. Geography-CMG	PhD in Physics, Chemistry, Mathematics and Geography in CSJMU campus
7. Chem, Maths, Comp Application.-CMCA	
8. Phy, Maths, Statistics- PMS	
9. <b>Phy, Chem, Environmental Science- PCE (New)</b>	
10. <b>Phy, Maths, Environmental Science -PME (New )</b>	

### ***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
- Problem solving sessions conducted by Padma Shri Prof.H.C. Verma Sir to prepare students for NGPE and IIT -JAM examinations.

- Several workshops on MAPLE , MATLAB, LATEX-PYTHON and GIS-Remote Sensing are being conducted on the regular basis
- Students admissions are enhancing each year drastically
- Great Participation of the students in the innovation activities

### ***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.

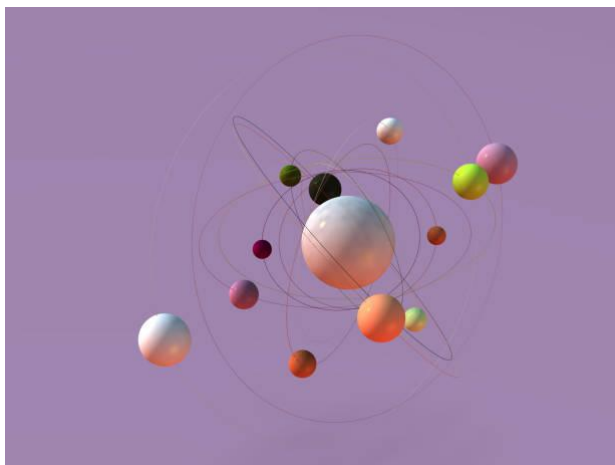
Working toward this goal, the School has Director **Prof. R.K Dwivedi**. Under the valuable guidance of our director, the School of Basic Sciences will be flourish. And there are 28 dedicated faculty members actively involved in teaching and research. Well established laboratories help in fostering the 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
6. To involve in projects leading to a good quality research



## ***MESSAGE FROM VICE CHANCELLOR'S DESK***

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***PROF. VINAY KUMAR PATHAK***

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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*

<p style="text-align: center;"><i>Department of Physics, School of Basic sciences</i></p> <p style="text-align: center;"><i>Prof. R.K Dwivedi, Director, School of Basic Sciences and CDC</i></p>		
1	Dr.Anju Dixit, Deputy Director	<p>Assistant Professor, Ph.D (University of Puerto Rico, San Juan, USA)</p> <p>Specialization: Electronics</p> <p>Area of Research: Condensed Matter Physics</p>
2	Dr. Ram Janma	<p>Assistant Professor</p> <p>Ph. D. (RGNF, JRF &amp; SRF)</p> <p>Specialization: Solid State Physics</p> <p>Area of Research: Fiber Optics Communication &amp; Optical Waveguide</p>
3	Dr.Prabal Pratap Singh	<p>Assistant Professor</p> <p>Ph.D&amp; NET (CSIR)</p> <p>Specialization: Solid State Physics</p> <p>Area of Research: Optical properties of layered media &amp; Photonic Crystals</p>
4	Dr.Shikha Shukla	<p>Assistant Professor</p> <p>Ph. D. (CSJM University, Kanpur)</p> <p>Specialization: Electronics</p> <p>Area of Research: Amorphous Semiconductors</p>
5	<b>Dr. Awanish Kumar Bajpeyi</b> <b>Coordinator</b>	<p>Assistant Professor, NET, CSIR</p> <p>Ph.D. (Rajiv Gandhi Institute of Petroleum Technology, Amethi)</p> <p>Specialization: Electronics</p> <p>Area of Research: Nuclear Astrophysics</p>
<p style="text-align: center;"><i>Department of Chemistry, School of Basic sciences</i></p>		
6	Dr.B.P.Singh	<p>Associate Professor, Ph.D. Banaras Hindu University, Varanasi, India</p>

		Specialization: Organic Chemistry Area of Research: Organic Chemistry/ Materials Chemistry/ Natural Products
7	Dr. Rashmi Dubey	Assistant Professor, Ph.D. C.S.J.M. University, Kanpur Specialization: Organic Chemistry Area of Research: Polymer
8	Dr. Ratna Shukla	Assistant Professor, Ph.D. HBTU, Kanpur Specialization: Physical Chemistry Area of Research: Chemical Kinetics
9	Dr. P.S. Niranjana	Assistant Professor, Ph.D. from AKTU Specialization: Interpenetrating polymer network Area of Research: Polymer-Surfactant interaction
10	Dr. Meraj Jafri, Deputy Coordinator	Assistant Professor, Ph.D. from AKTU Specialization: Interpenetrating polymer network Area of Research: Polymer
11	Dr. Indresh Kumar	Assistant Professor Area of Research:
12	<b>Dr. Dhananjay Dey, Coordinator</b>	Assistant Professor, Ph.D. from NIT Durgapur Specialization: Chemistry (Hons.) Area of Research: Inorganic chemistry and Organometallic Chemistry
<b>Department of Mathematics, School of Basic sciences</b>		
13	Dr. Varsha Gupta	Associate Professor, Ph. D. (IIT Kanpur) Area of Research: Numerical Analysis



14	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
15	Dr.Poonam Dixit	Assistant Professor, Ph. D (C. S. J. M University, Kanpur)  Area of Research: Complex Variables.
16	Dr.P.N.Pathak, Deputy Coordinator	Assistant Professor  Area of Research: Distribution Theory
17	Dr.SandeepPorwal	Assistant Professor  Area of Research:Operation Research
18	Dr. Izhar Ali Khan	Assistant Professor  Area of Research: Functional Analysis
19	Dr. Raghwendra Singh	Assistant Professor  Area of Research: Non-Linear wave in gas dynamics
20	Dr. Arpit Dwivedi	Assistant Professor, Ph. D. (CSIR NET-JRF, GATE)  Area of Research: Fractional Differential Equations
21	Dr. Shivam Omar	Assistant Professor, Ph.D. (CSIR-NET-JRF, GATE)  Area of Research: Differential Geometry
22	Dr.Yogesh Chandra	Assistant Professor  Area of Research: Fuzzy Topology ,Fuzzy Functional Analysis
23	Dr. Namita Tewari, Coordinator	Associate Professor  Area of Research: Cryptography



***Department of Geography , School of Basic sciences***

24	Dr. Pradeep Rajput	Assistant Professor, PhD Geography  Area of Research: Phenological and hydrological modeling, climate change and forestry
25	Dr. Durgesh Singh ( Coordinator )	Assistant Professor  Area of Research: Water Management and Physical Geography

***Department of Environmental Science & Technology , School of Basic sciences***

26	Dr. Droupti Yadav	Assistant Professor  Area of Research: Environment Science & Technology
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### *Alumni Students Placement*

<b>Name</b>	<b>Department</b>	<b>Placed</b>
YashVarshney	Chemistry	Patanjali Research Institute,Haridwar
MansiKaserey	Chemistry	Patanjali Food and Herbal Park, Haridwar
VaniSharma	Chemistry	Novozyme Pvt Ltd, Bengaluru
AmanRajput	Chemistry	SunPharma,Bengaluru
AnchalTyagi	Chemistry	NovozymePvt.Ltd.Bengaluru
RohitMaurya	Chemistry	Nestle,Punjab
NitinKumar	Chemistry	Mankind,Kanpur
AkhtarKhan	Chemistry	UnimarkHealthcareLtd.Haridwar
VikashMishra	Chemistry	SugarIndustry,Dhampur
SaurabhKumar	Chemistry	Akums Pharmaceuticals,Haridwar
HimanshuChauhan	Chemistry	TikualaSugarmillLtd.,MuzaffarNagar
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. Sonu Vishwkarma	Physics	Research Associate, Rajasthan Central University
Anjali Verma	Physics	PhD Scholar at IGCAR, Kalpakkam
Palak	Physics	Research Assistant at Sustainable & Enegy Department, IIT Kanpur
Anupama Prajapati	Physics	PhD Scholar at Depatment of Physics, IIT Kanpur
Tej Pratap Singh	Chemistry	PhD Scholar at Depatment of Chemistry, IIT Indore

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

### *Students Achievement 2024-25*

1. 21 Students has qualified IIT JAM -2024-25 Examination
2. One Student Aditya Kashyap has secured top position in NGPE exam at state level in 2025.
3. Many students have qualified UGC-NET Examination-2024-25.
4. Many students are persuing PhD and from different IITs.
5. Physics and Chemisty students are persuing projects at IITs and DMRDE.
6. Many Students have qualified GATE examination.

## *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 Singhanian Education Center, Kanpur**

**DMSRDE , Kanpur**

**MNIT, Allahabad**

**IISER, Mohali**

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

**Fragrance & Flavor Development Centre, FFDC Kannauj**

***Admission open for following Courses-2025-26***

S.No.	Name of the Course	Duration	Eligibility Criteria	Admission Mode	Fees
1.	B.Sc. ( Hons. ) Physics-30 seats B.Sc. ( Hons. ) Chemistry- 40 seats B.Sc. ( Hons. ) Mathematics-40 seats	Three Year	Passed 12 <sup>th</sup> class examination with Physics, Chemistry, Maths	Direct Merit Based	34,400/-
2.	B.Sc in 10 Combinations -150 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 9. <b>Phy, Chem, Environmental Science- PCE (New)</b> 10. <b>Phy, Maths, Environmental Science -PME (New )</b>	Three Year	Passed 12 <sup>th</sup> class examination with Physics, Chemistry, Maths	Direct Merit Based	25,400/-
3.	M.Sc (Physics )-15 seats	Two Year	Passed B.Sc examination with Physics	Direct Merit Based	29,400/
4.	M.Sc (Chemistry)-15 seats M.Sc ( Industrial Chemistry )- 15 seats	Two Year	Passed B.Sc examination with Chemistry	Direct Merit Based	29,400/
5.	M.Sc (Mathematics)-15 seats	Two Year	Passed B.Sc examination with, Maths	Direct Merit Based	29,400/
6.	M.A/M.Sc Geography -30 each	Two Year	Passed B.Sc examination with Geography	Direct Merit Based	15,400/
7.	M.Sc ( Environmental Science )	Two Year	Passed B.Sc examination	Direct Merit Based	46,400/-

***\* 10 percent seats in each course are reserved for the international students***

## *School of Basic Sciences*

### *New Courses-2025-26*

<b>S.No.</b>	<b>Course</b>	<b>Duration</b>	<b>Eligibility Criteria</b>	<b>Admission Mode</b>	<b>Fees</b>
1	Certificate course in Vedic Mathematics	6Month	12 <sup>th</sup> Passed with Mathematics	Direct Merit Based	Rs.11400
2	M.Sc.in Geography with specialization in GIS and remote sensing	2 Years	B.Sc. Passed with Geography/Physics/Mathematics	Direct Merit Based	Rs.15,400
3	M.Sc. in Mathematics with AI and data science	2 Years	B.Sc. Passed with Mathematics/ Computer Science/ Information Technology/ Computer Application/	Direct Merit Based	Rs.35,400
4	M.Sc.in Environment Science with specialization in Sustainability and Governance	2 Years	B.Sc. Passed with Chemistry/Environment Science	Direct Merit Based	Rs.50,400
5	M.Sc. in Chemistry with specialization in Fragrance & Flavour chemistry	2 Years	B.Sc. Passed with Chemistry	Direct Merit Based	Rs.1,00400

*\* 10 percent seats in each course are reserved for the international students*



### ***Contact Details***

<b>Name</b>	<b>Mobile No.</b>	<b>E-mail</b>
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Dr. Dhananjay Dey Coordinator, Chemistry Department, School of Basic Sciences	8918700407	ddeyskbu@gmail.com
Dr. Namita Tiwari Coordinator, Mathematics Department, School of Basic Sciences	9935814160	namitatiwari@csjmu.ac.in
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
Dr. Droupti Yadav Environmental Science		drouptiyadav@csjmu.ac.in

*Website: You can visit the following link to know more about the School of Basic Sciences.*

*[School of Basic Sciences| Chhatrapati Shahu Ji Maharaj University, Kanpur \(csjmu.ac.in\)](http://csjmu.ac.in)*

## *Conference, Workshops, Seminar at School of Basic Sciences*



**Prof. Shalabh, IIT Kanpur  
Vedic Ganit Workshop**



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



**Padma Shri Professor Manindra Agarwal, IIT Kanpur  
Professor CS Arvinda, IIFR, Bengaluru  
Harish Chandra Legacy Celebration**

**Padma Shri Professor H.C. Verma, IIT Kanpur  
Science Refresher Course**



**Padma Shri R.C. Gupta  
Ramanujan Legacy Week Celebration**

**DMSRDE Scientist  
Ozone Day Celebration**