

MSc Physics (Specialization in Astrophysics) **Admissions for Academic Year 2023-24**

About the programme:

As modern telescopes and computation attain unprecedented capabilities, they help evolve an improved understanding of astrophysical objects and phenomena in the Universe. In order to participate in and make contributions to cutting-edge research in astrophysics, it is essential to first acquire the relevant theoretical background and practical skills both of which require knowledge and application of basic physics.

The Department of Physics at St. Xavier's College, Mumbai started the MSc programme offering specialization in Astrophysics, in the academic year 2019-20. The first three batches of students have successfully completed the programme, and some of them have enrolled in reputed PhD programmes overseas.

The courses offered in the first three semesters of the MSc programme are listed in the table below. The final semester is dedicated completely to working on the Master's thesis, the topic of which may be in any area of physics or astrophysics.

Semester 1	Semester 2	Semester 3
Mathematical Physics	Statistical Mechanics	Physics of Radiation and Matter
Classical Mechanics	Electrodynamics and Solid State Physics	Stellar Structure and Evolution
Quantum Mechanics	Atomic, Molecular and Nuclear Physics	Galactic and Extragalactic Astrophysics
Electronics and Digital Image Processing	Introduction to Astronomy and Astrophysics	General Relativity and Cosmology
Laboratory course	Laboratory course	Laboratory course
Semester 4	Master's Dissertation	

Queries about the MSc programme and admissions may be directed to **msscphysics.sxc@gmail.com**.

The details of programme structure provided above are as per the academic year 2022-23. This structure is subject to change, to be in compliance with any updated guidelines that may be issued by the government or University of Mumbai, under National Education Policy (2020). Details in this regard will be updated, when available, on the college website: www.xaviers.edu

Eligibility:

Applications are now invited to the MSc Physics programme for the academic year 2023-24. Those with a BSc degree in Physics may apply.

Admission will be merit-based, and Semester V marks will be considered for the same. However, admission granted will be provisional, and will be subject to the applicant successfully qualifying the BSc degree. On admission to the course the original consolidated or third year mark sheet(s) must be submitted to the college office.

Please go through the application procedure and selection criteria outlined in this document prior to filling the online form.

Application procedure:

- Candidates can apply online by logging on to www.xaviers.edu. Click on the appropriate link to fill the online application form.
- The online application portal will close on 17th June 2023.
- The instructions given on the form must be followed for filling the same.
- In case the candidate is applying for a seat under minority/special category/Student with Disability (SWD), it is mandatory to upload a clear and legible scanned copy of proof e.g., Baptism certificate for Christian minority, or the relevant document for special category and SWD
- All applicants are mandatorily required to enter the marks of Semester V. No GPA will be entertained.
- Candidates are required to make an online payment through the provided payment portal only. The fee for online application for MSc Physics is Rs. 1500/-.
- Note that the application procedure is entirely online and no in-person forms of any sort will be accepted.
- The college takes no responsibility for corrections or any other processing in case of details entered incorrectly.
- The last date for receipt of the application form is 17th June 2023 (6.00 pm). Any application received after this date will not be accepted.
- Application fees are non-refundable.
- In case you belong to the Economically Weaker Section (EWS) as defined by the Government of India and you desire to apply for a concession in the application fee for the programme then please apply with all requisite documents to the Rector, The Bombay St. Xavier's College Society at **rectors.office@xaviers.edu**

Number of seats:

Intake of 20 students per year

Allocation of seats:

St. Xavier's College is a Christian Minority College, administered under the Provisions of the Indian Constitution. As per the Judgement dated 12th October 2017 of the Honorable Bombay High Court vide Writ Petition No.1726 of 2001, Minority Colleges do not need to set aside seats for Backward Classes. This was reiterated by the University of Mumbai Circular (No. Aff. / Recog.I / Admission (2018-19) / 10 / of 2018) dated 30th May 2018. Accordingly, the allocation of seats is as follows:

Category	Percentage of seats reserved	Number of seats out of 20
Management Quota	15%	3
		Number of seats out of 17
Christian Minority	50%	8
General	42%	7
Persons with disability	5%	1
Special**	3%	1

** The Special category is for the wards of transferred State / Central Government and Private Sector employees, Defense Personnel, Ex-Servicemen, Freedom Fighters; for students who have met with an accident and for award winners at the District / State / National Level in Sports or Cultural activities.

Seats for international students are supernumerary. Applications for those seats must be done through the University of Mumbai website (www.mu.ac.in), or you can apply directly through mu.admissiondesk.org. Please email and inform us if you are applying in the international student category. Students that fall under this category include - Foreign students (FR/FS), Persons of Indian origin (PIO), Overseas Citizens of India (OCI), SAARC students having a passport other than an Indian Passport, Non-Resident Indians (NRI). Students who have done their undergraduate degrees abroad also fall into this category. If you are unsure, please contact us.

NOTE: You should not apply to the college or fill the college application form. The number of these students, who are sent to the College directly by the University, are over and above the sanctioned seats. Kindly refer to this circular for further details:

[https://xaviers.edu/files/International%20Admission%20Circular%20\(2022\)%20\(1\)_230420_172945.pdf](https://xaviers.edu/files/International%20Admission%20Circular%20(2022)%20(1)_230420_172945.pdf)

Selection criteria:

- Applications will be sorted on the basis of the criteria listed in the table below.

Criteria	Mandatory	Weightage	Requisite document/s
BSc grades	Mandatory	30%	BSc Physics Sem V marksheet
Statement of purpose	Mandatory	10%	An essay of about 500 words describing your motivation for doing a Master's course in Physics with Astrophysics as a specialization
Co-curricular and extra-curricular achievements	Not mandatory	30%	Certificate/s or mark sheets of Inter-college/National/International achievements since June 2018 (single PDF file of less than 2 MB for upload)
Academic Interview	Mandatory	30%	---

- The date and time of the interview along with the video call link, will be intimated to the candidates through their email ID provided in the online form.

Merit list:

- The category-wise merit list and the dates of admission for all those who qualify for admission as per the criteria mentioned above, will be announced through the college website. Candidates are advised to check the same.
- The merit lists are time-bound as will be mentioned in the admission notification on the college website.
- If a candidate in the first merit list fails to complete the admission process within the stipulated date and time as mentioned on the notifications, their candidature stands lapsed. The candidates in the second and subsequent merit lists will subsequently be offered admission.
- Candidates who accept the offer of admission shall pay the necessary fees (as displayed on the college website or college notice board).
- Maximum fees for the programme is Rs. 95,000/- per year. This does not include the admission processing fee.

N.B.: St. Xavier's College will implement the National Education Policy (NEP) 2020 from the academic year 2023-24.
