

National Center for Nanosciences and Nanotechnology, University of Mumbai



M.Sc. in Nanosciences and Nanotechnology

2020-21

Understanding growing demand and the need to literate and motivate young generation towards the field of Nanosciences and Nanotechnology (The field has already reduced the gap in between scientific research and technological breakthroughs in various area including medical, space, military, communication technology etc.): The National Center for Nanosciences and Nanotechnology, University of Mumbai (NCNNUM) announces two years full time post graduate course work (i.e. M.Sc.) in Nanoscience and Nanotechnology for the academic year 2020-21. The proposed course work will offer an opportunity to students to combine solid scientific knowledge with extensive skills developed through hands-on research experience in cutting-edge technologies and state-of-the-art facilities developed at the center. This rigorous degree program designed pulls many areas of the natural sciences such as chemistry, material science, and structures that occur at the *nano level (i.e., smaller than 100 nanometers)*. *Students have freedom to choose courses and conduct research on topics related to nanosciences and nanotechnology in collaboration with research institutes as well as industries.*

Eligibility:

The admissions of Indian candidates are through a national level entrance examination. Applicants seeking admission to this course must have a B.Sc. degree from recognized university having specialization in Physics, Chemistry, Life Sciences, Biotechnology, Botany, Zoology, Microbiology, and Geology with minimum second class.

Candidates who have already appeared for the final year qualifying examination and whose results are awaited can also apply, however, they must submit a copy of their qualifying examination Statement of Marks at the time of admission else they will not be eligible for admission.

The candidate should submit hard copy of the application form (which can be downloaded directly from our centers website <http://archive.mu.ac.in/science/ncnnum/news.html>) along with Demand Draft of Rs. **100/-** (for open category) and Rs. **50/-** (for reserve category) in

favor of “*Finance and Accounts Officer, University of Mumbai, Mumbai*” by post or by courier or submit in person to the National Center for Nanosciences and Nanotechnology before **25th May 2020**.

Important dates and information for candidate:

- Application form submission : 25th May 2020
 - Date of entrance test : 01st June 2020
 - Time of entrance : 02:00 pm-3:30 pm
 - Venue of the entrance test : National Center for Nanosciences and Nanotechnology, University of Mumbai, Kalina Campus, Santacruz (E), Mumbai.
 - Nature of question paper : Total Marks : 100
(Total Questions 60 and 50 must be attended)
 - Display of merit list and admission schedule be displayed on the university website(<http://archive.mu.ac.in/science/ncnnum/news.html>) after eight days from the date of entrance examination.
 - Date of admission : Within a week after declaration of University of Mumbai B.Sc. Result
 - Commencement of the course: **Tentatively 01st July 2020***
 - Fee Structure : Rs. 27,000/- per year (approximate)
- * Will be displayed on the notice board/ intimated by email if the date is changed.

Other Instructions:

- Candidate should confirm his/her Seat No. of the Entrance Examination at centers website (<http://archive.mu.ac.in/science/ncnnum/news.html>) link prior to the entrance examination.
- Hall Tickets will be verified at the Examination Centre along with Photo Identity Proof (Pan Card/ Driving License / Election Card / Aadhar Card / College ID)
- The answer sheet will be of OMR (OPTICAL MARK READER) type and all answers are to be marked by BLACK BALL POINT PEN only.
- The syllabus for the entrance examination will be based on the syllabus of qualifying degree.

- Accommodation facilities for out stationed candidates will not be provided.

Syllabus for the entrance examination:

Entrance examination is based on under graduate level syllabus in science where percentage wise weightage will be Physics, Chemistry and biology 30 % each and 10 % for mathematics. Examples of questions are as bellow

- Pellagra is caused due to the deficiency of
 - a. Ascorbic acid/ Vit C
 - b. Nicotinic acid/Vit B3
 - c. Folic acid
 - d. Pantothenic acid
- The lowest pressure at which the liquid phase of a pure substance can exist is known as –
 - a. Critical point pressure
 - b. Triple-point pressure
 - c. Super-incumbent pressure
 - d. Saturation vapour pressure
- A dice is thrown, what is the probability of getting odd numbers.
 - a. 1/2
 - b. 1/3
 - c. 2/3
 - d. 1/4
- is the most stable allotrope of carbon.
 - a. Diamond
 - b. C60
 - c. CNT
 - d. Graphite
- The resistivity of the wire depends on
 - a. Diameter and length
 - b. Length and density
 - c. Density
 - d. None of the above
- If one bacterial cell divides every 20 minutes, what will be the total number of bacteria after 2 hours?
 - a. 2
 - b. 4
 - c. 16
 - d. 64

For more details

Please contact : **Dr. Bhavesh Sinha**
 (Admission coordinators-2020)
 E-mail: nano.office@nano.mu.ac.in
 (Please mention "Admission 2020- name in subject line for enquiry if any), Contact: 8668992011 (Dr. Bhavesh Sinha)

Contact Timing : 10.30 am to 05:00 pm
 Address : National Centre for Nanosciences and Nanotechnology,
 University of Mumbai

Place: Mumbai
 Date: 11th March 2020



Atul Chaskar
 Dr. Atul Chaskar
 I/c Director, NCNNUM
 Director
 National Centre for Nanosciences and Nanotechnology
 University of Mumbai



National Centre for Nanosciences and Nanotechnology, University of Mumbai

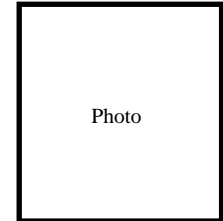
..... rise with interdisciplinary research



Admission Form for Entrance Examination

(M.Sc. in Nanosciences and Nanotechnology) Serial No: _____

The Director
National Center for Nanosciences and Nanotechnology,
University of Mumbai, Kalina Campus, Kalina,
Santacruz (E), Mumbai-400 098.



Sir,

I hear by wish to apply for the admission to 1st year of M.Sc. course in Nanosciences and Nanotechnology for the academic year 2020 - 2021.

Date: _____

Signature of applicant

- Name (CAPITAL LETTERS): _____
- Father Name: _____
- Date of Birth: _____ (As per matriculation certificate) Sex : Male/Female
- Category : Gen/Reserved (SC/ST/NT/OBC/SBC/SEBC) (Attach relevant attested certificates)
- Permanent Address : _____
_____ Mobile No: _____

- Local/Postal Address: _____
_____ Mobile No: _____

Email ID: _____

- Qualification Details :

Sr. No.	Examination	Board/ University	Name of School/College	Year of Passing	% marks obtained	Division	Subject
1	S.S.C.						
2	H.S.C.						
3	B.Sc.						

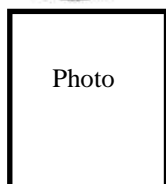
(Attach attested copies of all mark sheets and certificates supporting above column)

Date: _____

Signature of applicant



National Center for Nanosciences and Nanotechnology, University of Mumbai Admit Card for Entrance Examination



Name : _____ M.Sc. (Nanosciences and Nanotechnology) Serial No: _____ Roll No: _____

Examination Date: **1st June 2020** Time : **02:00 pm-03.30 pm**
Venue : National Center for Nanosciences and Nanotechnology, University of Mumbai,
Kalina Campus, Kalina, Santacruz (E), Mumbai 400 098

Receiving Authority