



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

Powai, Mumbai – 400 076.

Admission to Post-Graduate Programmes

Applications are invited for admission to the following Post-Graduate Programmes for the Academic Year 2008-09 starting from **January 2009**

Programme / Department	Minimum Eligibility Criteria <i>(This is general eligibility criteria, however, applicant must satisfy the eligibility criteria specified by the respective Departments / Centres / Schools/ ID Groups)</i>
Ph.D.	
AEROSPACE ENGINEERING	<p>First Class or 60% marks (55% for SC / ST) in :</p> <p>i) B.Tech. / M.Tech. or equivalent degree in Aerospace or Mechanical Engineering OR</p> <p>ii) B.Tech. / M.Tech. degree in other branches of engineering may be considered for research areas consistent with the academic background and special interests.</p> <p>Candidates with Bachelor's degree in engineering must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</p>
CHEMICAL ENGINEERING	<p>First Class or 60% marks (55% for SC / ST) in :</p> <p>i) B.Tech. / M.Tech. or equivalent degree in Chemical Engineering OR</p> <p>ii) B.Tech. / M.Tech. or equivalent degree in other branches of Engineering may be considered in areas consistent with the research areas of the department OR</p> <p>iii) M.Sc. in disciplines consistent with the research areas of the department.</p> <p>Candidates with Bachelor's degree in engineering or masters degree in science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</p>
CHEMISTRY	<p>First Class or 60% marks (55% for SC / ST) in :</p> <p>M.Sc. or equivalent degree in Chemistry / Physics / Biochemistry / Life Sciences / Pharmacy / Material Science / Biotechnology.</p> <p>Candidates with masters degree in science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</p>
CIVIL ENGINEERING	<p>First Class or 60% marks (55% for SC / ST) in :</p> <p>i. B.Tech. / M.Tech. or equivalent degree in Civil Engineering OR</p> <p>ii. B.Tech. / M.Tech. degree in any branch of Engineering OR</p> <p>iii. M.Sc. degree in any branch of Science may be considered for research areas consistent with the academic background and special interests.</p> <p>Candidates with Bachelor's degree in engineering or masters degree in science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</p>
COMPUTER SCIENCE & ENGINEERING	<p>First Class or 60% marks (55% for SC / ST) in :</p> <p>i. B.E. / B.Tech or M.E. / M.Tech or M.Sc. / MCA or an equivalent degree from a recognized university.</p> <p>Candidates without a masters degree in engineering are required to have a valid GATE score in order to be eligible for the Teaching/Research Assistantship provided by the Institute.</p> <p>Further, we consider MCA degree as equivalent to Master's degree in Science.</p> <p>Eligible applicants will be further shortlisted and the shortlisted candidates will be called for written test and interview. The syllabus for written test can be found by following the website of the department at www.cse.iitb.ac.in.</p> <p>Candidates who are admitted to the Ph.D. programme will be required to pass a “qualifying” exam to continue to stay in the programme. Depending on the candidate’s academic background, this will be given six months to one year after</p>

	they join. Details regarding this examination can be found at http://www.cse.iitb.ac.in/phdqualifier .
EARTH SCIENCES	<p>First Class or 60% marks (55% for SC / ST) in :</p> <ol style="list-style-type: none"> M.Sc. / M.Tech. / M.Sc.(Tech.) / M.Phil. (2-year) degree in Geology, Geophysics, Geochemistry or equivalent OR M.Sc. / M.Tech. / M.Sc. (Tech.) / M.Phil. (2-year) degree in Physics, Chemistry, Mathematics, Life Sciences, Marine Sciences, Atmospheric Sciences or equivalent and having Geology / Physics / Geochemistry at the B.Sc. stage as principal subjects. <p>Candidates with Bachelor's degree in Engineering or Masters degree in Science must have a valid GATE score to become eligible for the Teaching/ Research Assistantship provided by the Institute.</p> <p>Candidates with First class or 60% marks (55% for SC/ST) in Postgraduate degree in Science / Engineering and employed in a field / research area related to Earth Sciences may be considered for Ph.D. programme as external candidates, on a case-to-case basis, depending on the research interest of the Department.</p>
ELECTRICAL ENGINEERING	<p>First Class or 60% marks (55% for SC / ST) in :</p> <ul style="list-style-type: none"> ➤ B.E. / B.Tech. / M.E. / M.Tech. or equivalent degree in Computer Science, Computer Science & Engineering, Computer Engineering, Electrical Engineering, Electronics Engineering, Engineering Physics, Telecommunication Engineering, Instrumentation Engineering, Biomedical Engineering. Such candidates are eligible for research areas consistent with their academic background and special interests OR ➤ Master of Science in Mathematics, Physics, Electronics with an interest in Electrical Engineering Sciences. <p>Candidates with Bachelor's degree in engineering or masters degree in science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</p>
ENERGY SCIENCE & ENGINEERING	<p>First Class or 60% marks (55% for SC / ST) in :</p> <ol style="list-style-type: none"> B.Tech. / M.Tech. Degree in any of the following branches of engineering: Aeronautical / Aerospace, Chemical, Civil, Electrical, Energy, Mechanical, Metallurgical OR M.Sc. in Chemistry / Physics / Mathematics with a good academic record and a minimum of two years of relevant engineering experience in an energy related field. <p>Candidates with Bachelor's degree in engineering or masters degree in science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</p>
HUMANITIES & SOCIAL SCIENCES	<p>First class or 60% marks (55% for SC / ST) or equivalent letter grade in :</p> <ol style="list-style-type: none"> M.A. / M.Com. or equivalent degree. OR Master's degree in Science / Graduate Degree in Engineering / Technology may be considered for research areas consistent with the academic background and special interests OR M.Phil. degree in any of the six disciplines (pertaining to the research areas listed below) or in any allied subjects or in "Humanities and Social Sciences with specialization in Planning and Development" awarded by IIT Bombay.
MATHEMATICS	<p>First Class or 60% marks (55% for SC / ST) in :</p> <p>M.A. / M.Sc. in Mathematics / Statistics / Computer Science OR M.Stat.</p> <p>Candidates with Masters degree in Arts/Science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</p>
MECHANICAL ENGINEERING	<ol style="list-style-type: none"> B.Tech. / M.Tech. or equivalent degree in Mechanical Engineering with First class or 60% marks (55% for SC / ST) at UG & PG levels OR B.Tech. / M.Tech. degree or equivalent in Production Engineering / Industrial Engineering / Aerospace Engineering with First class or 60% marks (55% for SC / ST) at UG & PG levels may be considered OR B.Tech. / M.Tech. Degree in other branches of Engineering / Technology with an outstanding academic record may also be considered for research areas consistent with their academic background and special interests of the Department. <p>Candidates with Bachelor's degree in engineering must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</p>

<p>METALLURGICAL ENGINEERING AND MATERIALS SCIENCE</p> <p>CORROSION SCIENCE & ENGINEERING</p>	<p>First Class or 60% marks (55% for SC / ST) in :</p> <p>i) B.Tech./M.Tech. in Ceramic, Chemical, Electrical, Electronics, Electrochemical, Mechanical / Production / Manufacturing, Metallurgical, Materials Engineering, Engineering Physics OR</p> <p>ii) M.Sc. degree in Chemistry, Materials Science, Physics are eligible for admission. For those with M.Sc. degree, mathematics as a subject at B.Sc. degree level is an essential requirement.</p> <p>First Class or 60% marks (55% for SC / ST) in :</p> <p>i. B.Tech. / M.Tech. in Corrosion Science and Engineering / Metallurgical Engineering / Materials Science Engineering / Electrochemical Engineering / Chemical Engineering / Aerospace Engineering / Electrical Engineering / Mechanical Engineering / Civil Engineering OR</p> <p>ii. Master's Degree in Chemistry or Materials Science.</p> <p>Candidates with Bachelor's degree in engineering or masters degree in science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</p> <p>The candidates are eligible for research areas consistent with their academic background and special interests.</p>
<p>PHYSICS</p>	<p>First Class or 60% marks (55% for SC / ST) in :</p> <p>i) M.Sc. or equivalent degree in Physics / Chemistry / Mathematics OR</p> <p>ii) B.Tech. or equivalent degree in Aerospace Engineering / Chemical Engineering / Civil Engineering / Electrical Engineering / Mechanical Engineering / Metallurgical Engineering / Computer Science / Engineering Physics.</p> <p>Candidates with Bachelor's degree in engineering or masters degree in science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</p>
<p>INDUSTRIAL ENGINEERING AND OPERATIONS RESEARCH</p>	<p>First Class or 60% marks (55% for SC / ST) in :</p> <p>i) Master's degree in any branch of Engineering with adequate exposure to Industrial Engineering and Operations Research OR</p> <p>ii) M.Sc. in Mathematics, Statistics or Operations Research with an excellent academic record OR</p> <p>iii) Bachelor's degree in any branch of Engineering with an excellent academic record.</p> <p>Candidates with Bachelor's degree in engineering or masters degree in science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</p>
<p>SYSTEMS AND CONTROL ENGINEERING</p>	<p>First Class or 60% marks (55% for SC / ST) in :</p> <p>M. E. / M.Tech in Aerospace / Chemical / Electrical / Electronics/ Instrumentation/ Mechanical/Metallurgical Engineering / Systems and Control Engg.</p>
<p>ENVIRONMENTAL SCIENCE AND ENGINEERING</p>	<p>First Class or 60% marks (55% for SC / ST) in :</p> <p>i. Bachelor or Master of Engineering degree in Aeronautical / Aerospace, Agricultural, Atmospheric Science, Chemical, Civil, Energy Systems, Environmental, Mechanical, Metallurgical, Mining OR</p> <p>ii. Master of Science degree (Mathematics at the Higher Secondary/Intermediate Level) in Atmospheric Sciences, Biochemistry, Biotechnology, Chemistry, Earth Sciences, Environmental Toxicology, Environmental Science, Life Sciences, Medical Sciences, Meteorology, Microbiology, Physics, Public Health & Statistics are eligible for Ph.D. admission.</p> <p>Candidates with Bachelor's degree in engineering or masters degree in science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</p>
<p>INDUSTRIAL DESIGN CENTRE (Ph.D. in Design)</p>	<p>First Class or 60% marks (55% for SC/ST) in :</p> <p>i. M.Des. / M.Arch. / M.Tech. / M.Phil. / MFA / Post-Graduate Diploma in Design of NID, Ahmedabad and equivalent OR</p> <p>ii. B.Des. / B.Arch. / BFA / MA / M.Sc. / Under-Graduate Diploma in Design of NID, Ahmedabad or equivalent degree with exceptionally outstanding design related work with a valid CEED score.</p> <p>Candidates with a minimum of three years of relevant professional experience without CEED scores can also be considered, however, such candidates will not be awarded Teaching / Research Assistantship.</p>
<p>CENTRE OF STUDIES IN RESOURCES ENGINEERING (Natural Resources Engg.)</p>	<p>First Class or 60% marks (55% for SC/ST) in :</p> <p>i. B. Tech./B.E. in any branch of engineering OR</p>

	<p>ii. M.Sc. in any branch of science (<i>preceded by B.Sc.</i>) with Mathematics as a subject upto 10+2 level OR</p> <p>iii. M.Tech. in any branch of engineering (<i>preceded by B.Tech./B.E./M.Sc. degree</i>)</p> <p>Candidates with Bachelor's degree in engineering or masters degree in science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</p> <p>The applicant should have a relevant background to carryout research in the field of Natural Resources Engineering. For more details please visit (www.csre.itb.ac.in)</p>
CENTRE FOR TECHNOLOGY ALTERNATIVES FOR RURAL AREAS (CTARA)	<p>i. Admission will be restricted to students having B. Tech./M.Tech (or equivalent) degrees in any branch of Engineering (Mech, Elec, Chem, Civil, Food, Metallurgy/Material Science, Energy, Biotechnology, Communications, Water Resources,, Environmental Engg), Architecture Agriculture and Natural/ Life Sciences M.Sc degree in Physics, Chemistry, Botany, Agri Sc, Earth Sc, Biotechnology).</p> <p>ii. Adequate Exposure/Experience in carrying out Field Work and /or Technology Transfer/Project Management and to Contemporary International issues related to Technology and Development is considered desirable.</p> <p>iii. Eligible candidates should apply on the format prescribed by the Institute. A clear Statement of Purpose (SoP) along with Area of Research Interest must accompany the application. Admission will be made through a written-test followed by an interview.</p>
CENTRE FOR RESEARCH IN NANOTECHNOLOGY & SCIENCE (CRNTS)	<p>i. First Class M.Tech. in Electrical, Mechanical, Civil, Metallurgical, Materials, Chemical, Biomedical Engineering, Energy Science and Engineering and Environmental Science and Engineering</p> <p>ii. First Class M.Sc. in Physics, Chemistry Biological and Environmental Sciences or Bachelors degree in above mentioned Engineering disciplines with valid GATE score or an award of CSIR/UGC/DBT Research Fellowship.</p>
SHAILESH J. MEHTA SCHOOL OF MANAGEMENT	<p>i. B.E. / B.Tech. or equivalent with First class or 60% marks (55% for SC / ST) with minimum of 2 years of relevant work experience OR</p> <p>ii. M.E. / M.Tech. or equivalent degree with First class or 60% marks (55% for SC / ST) at graduation and post graduation level OR</p> <p>iii. Master of Management / M.B.A. or equivalent with First class or 60% marks (55% for SC / ST) at graduation and post graduation level OR</p> <p>iv. M.Sc. / M.A. / M.Com. / LLM / MCA or equivalent with First class or 60% marks (55% for SC / ST) at graduation and post graduation levels and 2 years of relevant work experience.</p>
SCHOOL OF BIOSCIENCES AND BIOENGINEERING	<p>a) BIOTECHNOLOGY: First Class or 60% marks (55% for SC / ST) in :</p> <p>i) M.Sc. or equivalent degree in subjects related to Biological and Life Sciences / Physics / Chemistry with valid GATE score OR CSIR / UGC / DBT / ICMR Research Fellowship (Not Lectureship). <i>Candidate with B.Tech/ B.Pharm with 60% (55% for SC/ST) plus 2 years Research experience may be considered but they will not be eligible for TA/RA ships provided by Institute.</i> OR</p> <p>ii) B.Tech / B.Pharm or equivalent degree with valid GATE score OR CSIR / UGC / DBT / ICMR Research Fellowship (Not Lectureship) <i>Candidate with B.Tech/ B.Pharm with 60% (55% for SC/ST) plus 2 years Research experience may be considered but they will not be eligible for TA/RA ships provided by Institute.</i> OR</p> <p>iii) M.Sc./MBBS degree in occupational Physiotherapy, with AIIMS / All India MCI / JIMPER / PGI Chandigarh / AFMC Pune / DNB Part I national level postgraduate entrance examinations OR</p> <p>iv) M.V.Sc. / M.Pharm/ M. Tech or equivalent degree.</p> <p><i>NET Lecturership holders can be considered for admission, provided they are having minimum of two years of professional experience from a reputed organization, however, they will not be considered for Teaching Assistantship / Research Assistantship.</i></p>

b) BIOMEDICAL ENGINEERING:

First Class or 60% marks (55% for SC / ST) in :

- i. M.Tech / M.E. in Biomedical, Chemical, Computer Science, Electrical, Electronics, Instrumentation, Mechanical Engineering, Metallurgy and Materials Science, Telecommunications Engineering, Engineering Physics or equivalent degree OR
- ii. B.Tech / B.E. in above mentioned area or equivalent with valid GATE scores OR
- iii. M.Sc. or equivalent in Biochemistry, Biophysics, Biotechnology, ceramics, Chemistry, Electronics, Ergonomics, Material Science, Mathematics, Molecular Biology, Physics and Physiology with valid GATE / CSIR / UGC / DBT / ICMR (Not Lectureship) fellowships. **Candidate with B.Tech/ B.Pharm with 60% (55% for SC/ST) plus 2 years Research experience may be considered but they will not be eligible for TA/RA ships provided by Institute.** OR
- iv. MBBS degree or graduate degree in occupational Psychotherapy or BDS with AIIMS / All India MCI / JIMPER / PGI Chandigarh / AFMC Pune / DNB Part I national level postgraduate entrance examinations or GATE Life Sciences scores or CSIR / UGC / DBT / ICMR fellowships (Not Lectureship) OR
- v. **M.Pharm / MD / MS / MDS / MVSc or equivalent degree. #**
Applicant with these qualifying degrees must submit a certificate for their having 60% (55% for SC/ST), failing which, they will not be eligible for admission.

NET Lecturership holders can be considered for admission, provided they are having minimum of two years of professional experience from a reputed organization, however, they will not be considered for Teaching Assistantship / Research Assistantship.

c) CHEMICAL BIOLOGY:

First Class or 60% marks (55% for SC / ST) in :

M.Sc. or equivalent degree in Chemistry / Biochemistry / Biotechnology / Biological Science / Life Science / Materials Science / Pharmacy / Physics with valid GATE score or a valid award of a CSIR / UGC / DBT / ICMR Research Fellowship.

NET Lecturership holders can be considered for admission, provided they are having minimum of two years of professional experience from a reputed organization, however, they will not be considered for Teaching Assistantship / Research Assistantship.

d) BIOCHEMICAL ENGINEERING:

First Class or 60% marks (55% for SC / ST) in :

B.Tech / BE / Equivalent or M.Tech / ME / Equivalent in Chemical Engineering, Biotechnology, Biochemical Engineering, Biomedical Engineering or

M.Sc. or equivalent in Biological and life sciences, physics, chemistry, biophysics, mathematics, Computer applications, Bioinformatics with valid GATE score or a valid award of a CSIR/UGC/DBT/ICMR Research Fellowship.

NET Lecturership holders can be considered for admission, provided they are having minimum of two years of professional experience from a reputed organization, however, they will not be considered for Teaching Assistantship / Research Assistantship.

Note:

1. **Candidates not having a valid GATE score** or CSIR / UGC / NBHM / DBT award can be considered for admission to the Ph.D. programme if they have minimum of 2 years of professional work experience (after passing qualifying degree), provided they fulfill other eligibility criteria fixed for department of his / her choice. **However, such students are not entitle for any Teaching / Research Assistantship, etc.**
2. **In addition to the above, candidates should also satisfy the eligibility criteria specified by the respective Department / Centre / School / ID groups as mentioned in the Ph.D. brochure.**

- Reservation for SC / ST / PC (Physically Challenged) candidates as per Government of India rules.
- Wherever there is specific requirement of percentage of marks in qualifying examination, it is relaxed by 5% for SC / ST applicants.

- Candidates appearing in the final year of qualifying degree examination are eligible to apply, however, they must submit attested copies of qualifying degree certificates / final transcripts on or **before 31th January, 2009**, failing which admission will stand cancelled.
- A separate application form should be used for each programme.

Candidates applying for Ph.D. Programme can give preference for **three** Department / Interdisciplinary groups / Centre / School in one application form. **However, he must submit adequate number of sets of applications with enclosures.** For further choices, if any, additional forms may be used.

Candidate can download and submit the duly filled in application form along with application fee of Rs. 300/- (Rs. 150/- for SC / ST candidates) by Demand Draft drawn in favour of '**Registrar, IIT Bombay**' payable at SBI or Canara Bank, IIT Powai branch. **Application Forms without Demand Draft will not be considered.**

The brochure and application forms for all above programmes may also be obtained by post or in person from the **Deputy Registrar (Academic), IIT Bombay, Powai, Mumbai – 400 076** on payment of Rs. 300/- (Rs. 150/- for SC/ST candidates) through Demand Draft drawn in favour of '**Registrar, IIT Bombay**' payable at SBI or Canara Bank, IIT Powai branch. In case of request by post, please enclose a self-addressed strong cloth-lined envelope (size 27 cms X 20 cms) affixed with postage stamps of Rs. 30/-.

Application forms for admissions to Ph.D. Programme can be obtained & submitted throughout the year; however, such applications will be processed only twice in a year (i.e. July and December).

Programme	Issue of application forms begins	Last date of receipt of completed application forms at IIT Bombay
Ph.D.	16-10-2008	14-11-2008

Deputy Registrar (Academic)

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