

1. INTEGRATED MASTERS COURSES

COURSES OFFERED

1. Chemical Engineering (Major)
Polymer and Materials Engineering (Minor)
2. Chemical Engineering (Major)
Food Engineering and Technology (Minor)
3. Chemical Engineering (Major)
Pharmaceutical Technology (Minor)
4. Chemical Engineering (Major)
Lipid Engineering (Minor)
5. Chemical Engineering (Major)
Energy Engineering (Minor)
6. Chemical Engineering (Major)
Petrochemical Engineering (Minor)

2. EXECUTIVE MASTER'S COURSES

Admissions to Executive M. Tech.:

Industry - sponsored candidates having relevant experience of minimum 8 years.

COURSES OFFERED

(Table 1)

Sr. No.	Degree	SPECIALIZATION	Intake
1.	M. Tech. (2-years, 6 Trimester)	Process Engineering	30

3.DOCTORAL COURSES

COURSES OFFERED

(Table 2)

Sr. No.	Degree	Courses
1.	Ph. D. Tech.	Agrochemical Engineering
2.		Bioprocess Technology
3.		Chemical Engineering
4.		Dyestuff Technology
5.		Energy Engineering
6.		Fibre and Textile Processing Technology
7.		Food Biotechnology
8.		Food Engineering and Technology
9.		Green Technology
10.		Lipid Engineering
11.		Perfumery and Flavour Technology
12.		Petrochemical Engineering
13.		Pharmaceutical Technology
14.		Plastic Engineering
15.		Polymer and Materials Engineering
16.		Surface Coating Technology
17.		Civil Engineering
18.		Electrical Engineering
19.		Electronics Engineering
20.		Mechanical Engineering
21.	Ph. D (Sci.)	Biochemistry
22.		Biotechnology
23.		Chemistry
24.		Food Science
25.		Mathematics
26.		Physics
27.		Textile Chemistry

All Ph.D. programs are now redesigned with course work as per UGC regulations.

1. ADMISSION TO FIRST YEAR OF INTEGRATED M. Tech. PROGRAM IN FOLLOWING

1.1 APPLICATION PROCEDURE:

All admissions will be conducted by the Institute of Chemical Technology, Mumbai Campus

FOR ONLINE ADMISSION FORM VISIT <http://www.ictmumbai.edu.in>

Admission quota for all integrated M. Tech. courses are as follows.

The availability of seats (60) for these courses shall be as

- a) 70% for State of Maharashtra (through MHT CET - 2019) and
- b) 30% for All India (all States and Union Territories including Maharashtra) through JEE MAIN paper 1 – 2019

1.2 INTEGRATED MASTER COURSES OF STUDIES AND INTAKE CAPACITY:

All Integrated courses are post HSC or its equivalent examination with Physics, Chemistry and Mathematics as compulsory subjects and obtained at least 50% marks in aggregate (at least 45% marks, in case of backward class categories and persons with disability candidates).

Integrated Masters of Technology (M.Tech.)

Sr.	SPECIALIZATION	Intake
1.	Chemical Engineering (Major)	60
	Polymer and Materials Engineering (Minor)	
2.	Chemical Engineering (Major)	
	Food Engineering and Technology (Minor)	
3.	Chemical Engineering (Major)	
	Pharmaceutical Technology (Minor)	
4.	Chemical Engineering (Major)	
	Lipid Engineering (Minor)	
5.	Chemical Engineering (Major)	
	Energy Engineering (Minor)	
6.	Chemical Engineering (Major)	
	Petrochemical Engineering (Minor)	

Reservations:

All the reservations given below shall be applicable to candidates belonging to Maharashtra State only subject to the fulfilment of the eligibility criteria specified by respective authorities from time to time.

Reservation for Backward Class Category Candidates: The percentage of seats reserved for candidates of backward class categories belonging to Maharashtra State is as given below. The percentage of reservation is the percentages of the seats available for Maharashtra candidates. Backward class candidates shall claim the category to which they belong to at the time of submission of application form.

Sr. No.	Category of Reservation	Percentage of Seats Reserved
1.	Scheduled Castes and Schedule Caste converts to Buddhism (SC)	13.0%
2.	Schedule Tribes (ST)	7.0%
3.	Other Backward Classes (OBC)	19.0%

1.3 COURSE STRUCTURE:

Integrated M. Tech. (passed HSC or its equivalent examination with 15 trimesters and alternate trimester in industry leading to TWO years of experience).

The alternate industry and class room teaching module is given below:

Trimester	Classroom learning	Industry placement	Comments
1	Batch A + Batch B		Both together to learn basics
2	Batch B	Batch A	
3	Batch A	Batch B	
4	Batch B	Batch A	
5	Batch A	Batch B	
6	Batch B	Batch A	
7	Batch A	Batch B	
8	Batch B	Batch A	
9	Batch A	Batch B	
10	Batch B	Batch A	
11	Batch A	Batch B	
12	Batch B	Batch A	
13	Batch A	Batch B	
14	Batch A + Batch B		8 month industrial design project
15	Batch A + Batch B		Both batches will graduate together

1.4 FEES, CONCESSIONS, CANCELLATIONS AND REFUND:

Course Fees prescribed:

The candidates admitted during 2019-20 are required to pay fees as prescribed by the State Government.

The institutional fees to be paid by all the admitted candidates are as follows:

Sr. No.	Type of Fees	Open and all reserve category students fee for 1 st Year (₹)
1	Library Deposit	2,000
2	Fees	90,000
	Total	92,000

*Research contingency of 12,000 will be added in the fifth year of fees.

2. EXECUTIVE MASTERS DEGREE PROGRAMME

2.1 APPLICATION PROCEDURE FOR EXECUTIVE MASTER'S COURSES:

All these admissions will be conducted by the Institute of Chemical Technology, Mumbai Campus FOR ONLINE ADMISSION FORM VISIT <http://www.ictmumbai.edu.in>

This program is 6 – Trimester with alternate term in the candidates own industry but with the supervision of guide from ICT's any campus.

2.2 ELIGIBILITY CRITERIA FOR THE ADMISSION TO EXECUTIVE MASTERS M. Tech.:

The candidate should have passed Bachelor's degree in any branch of Engineering or Technology or Master's degree in any branch of Science.

These courses are meant only for industry sponsored candidates. Candidates must possess eight years of relevant industrial experience.

In addition, for such candidates, the following shall be applicable:

The candidate should be Full time industrial/ R and D employee with at least eight years' experience in a chemical or allied industry.

The industry should undertake the responsibility of releasing the candidate for course work (Theory Classes), experimental work (Laboratory work) or discussions with the concerned research guide from time to time. A proper time table should be prepared by the concerned teacher and his supervisor, which will be approved by the Head of Department/ Centre Director. A bond in this regard should be signed and approved by the Vice Chancellor, ICT.

The candidates taking admission to these courses will have option to attend the lectures/ practicals over a total span of two years and clear the examinations.

Candidates can work in the ICT laboratories during holidays (with a prior permission to work on holiday/ late working) and also after their office hours. They must indicate on which date they will avail of the research facilities in ICT. A proper log book must be maintained by the candidate

duly signed by his/ her supervisor which will be authenticated by the Head of Department/ Centre Director.

Part of the experimental work could be allowed to be done in their premises (concerned industry/ institute) for which their management will provide them with necessary facilities.

2.3 FEES, CONCESSIONS, CANCELLATIONS AND REFUND:

Course Fees prescribed:

The institutional fees to be paid by all the admitted candidates are as follows:

Sr. No.	Type of fees	Nonrefundable fee for entire course (₹)
1	Library Deposit	5,000
2	Fees	5,05,000
	Total	5,10,000*

*The total fee to be paid at the time of admission.

*One time refundable in case of admission is cancelled.

3. DOCTOR OF PHILOSOPHY (Ph.D.) PROGRAMME

3.1 APPLICATION PROCEDURE:

All these admissions will be conducted by the Institute of Chemical Technology, Mumbai Campus

FOR ONLINE ADMISSION FORM VISIT <http://www.ictmumbai.edu.in>

3.2 INTAKE CAPACITY:

There is no prescribed intake capacity for any of the Doctoral courses/ branches since the number of available fellowships and the requirement by the research supervisors varies every year. Several research projects, either funded by various government agencies or private industries, have provisions for fellowships. No admission to a Ph.D. course is done without fellowship, although the amounts vary depending on the source of funding and the candidate's qualifications.

3.3 INSPIRE FELLOWSHIP FROM DEPARTMENT OF SCIENCE AND TECHNOLOGY, GOVT. OF INDIA

First Rank holders in Master's degree in Engineering/ Technology/ Pharmacy/ Science of any UGC/ AICTE recognized Indian University or Institute/ Statutory Body in India can apply for award of INSPIRE FELLOWSHIP, a scheme of the Government of India to avail research grants for a period of five years for doing research leading to Ph.D. degree. Application format and necessary documents for application are available on the website www.inspire-dstgov.in . Eligible candidates should apply directly to DST and after getting provisional acceptance, they may be considered for admission at ICT, subject to fulfilment of other criteria.

3.3.1 ELIGIBILITY CRITERIA FOR ADMISSION TO Ph.D. (Tech.)/ Ph.D. (Sci.):

For Ph.D. (Tech.) course at Sr. No. 1, 3, 5 and 12 in Table 2, the candidate must have passed the Master's degree examination in the Agrochemical Engineering / Chemical Engineering / Chemical Technology (any branch at ICT)/ Pharmacy/ Plastic Engineering of ICT/ [(M.E in Petrochemical Engineering/ Environmental Engineering) (Provided Bachelor Degree in Chemical Engineering)] or any other UGC recognized University as equivalent thereto with

60% marks or equivalent CGPA (55% marks or equivalent CGPA in case of reserved category).

For Ph.D. (Tech.) course at Sr. No. 2 in Table 2 must have passed Master's degree examination in the Chemical Engineering/Bioprocess Technology/ Chemical Technology (any branch at ICT)/ Pharmacy/M. Tech. Biotechnology/Biochemical Engineering/ or any other UGC recognized university as equivalent there to with 60% marks or equivalent CGPA (55% marks or equivalent CGPA in case of reserved category).

For Ph.D. (Tech.) courses at Sr. No. 4, 6, 9, 10, 11, 13, 14, 15 and 16 in Table 2, the candidate must have passed the Master's degree examination in the Chemical Engineering / Chemical Technology (any branch at ICT)/ Pharmacy/ Plastic Engineering of ICT or any other UGC recognized University as equivalent thereto with 60% marks or equivalent CGPA (55% marks or equivalent CGPA in case of reserved category).

For Ph.D. (Tech.) courses at Sr. No. 17-20 in Table 2, the candidate must have passed the Master's degree examination in Mechanical / Production / Industrial / Thermal / Machine design / Machine tools / Automobile / Material Science / Electrical / Power systems / Control systems / Instrumentation / Civil / Structural / Environmental / Civil and Water management / Transportation engineering, construction / construction management / Geotechnical / Water Resources from any UGC recognized university as equivalent thereto with 60% marks or equivalent CGPS (55% marks or equivalent CGPA in case of reserved category).

For Ph.D. (Tech.) course at Sr. No. 7 in Table 2 must have passed the Master's degree in Food Engineering and Technology / Food Technology/ Biotechnology/ Food Biotechnology/ Food and Biochemical Engineering/ Chemical Technology (any branch at ICT)/ Chemical Engineering of any UGC recognized University as equivalent thereto with 60% marks or equivalent CGPA 55% marks or equivalent CGPA in case of reserved category.

For Ph.D. (Tech.) course at Sr. No. 8 in Table 3.4.1 must have passed the Master's degree in Food Engineering / Food Technology/ Food and Biochemical Engineering/ Chemical Technology (any branch at ICT)/ Chemical Engineering of any UGC recognized University as equivalent thereto with 60% marks or equivalent CGPA 55% marks or equivalent CGPA in case of reserved category.

For Ph. D. (Sci.) courses at Sr. No. 21 and 22 in table 2, the candidate must have passed the Master's degree examination in any biological faculty of science of any university recognized by UGC with minimum of 55% marks or equivalent CGPA (50% MARKS OR EQUIVALENT CGPA in case of reserved category).

For Ph.D. (Sci.) courses at Sr. No. 23, 25 and 26 in Table 2, the candidate must have passed the Master's degree examination in the respective Subject of any University recognized by UGC with minimum of 55% marks or equivalent CGPA (50% marks or equivalent CGPA in case of reserved category).

For Ph.D. (Sci.) course at Sr. No. 24 in Table 2, in Food Science the candidate must have passed the M. Sc examination in Food Science, Food Processing, Nutrition, Home Science, Post-harvest Technology, Horticulture, Dairy Science, Biochemistry, Microbiology, Organic Chemistry of any UGC recognized University as equivalent thereto with 60% marks or equivalent CGPA (55% marks or equivalent CGPA in case of reserved category).

For Ph.D. (Sci.) course at Sr. No. 27 in Table 2, in Textile Chemistry, the candidate must have passed the M. Sc. examination in Textile Chemistry/ Textile Clothing/ Life Sciences/ Biochemistry/ Microbiology/ Chemistry of ICT or of any University recognized by UGC with minimum of 55% marks or equivalent CGPA (50 % marks or equivalent CGPA in case of reserved category).

Further, candidates from any of these streams must clear the written test of the institute which are based on the syllabus.

The candidates who have passed the Master's degree by Research of any University recognized by UGC may be considered for admission only if they hold fellowship from any recognized funding agency.

The candidates qualified in NET/ GATE/ GPAT/ CSIR/ DBT/ - JRF examinations or other equivalent examinations and holding valid fellowship will be preferred.

Apart from regular full time on- campus candidates, following candidates are also eligible for admission to Ph.D. (Tech.)/ Ph.D. (Sci.):

- (i) Permanent full time teachers of College/ Institute
- (ii) Employees of National laboratories/ Government Institutions
- (ii) Employees of Industry

However, persons qualified in NET/ CSIR/ DBT-JRF and holding valid fellowship obtained from Government funding agencies such as DST, ICMR, UGC, CSIR, etc. are exempted from the entrance written Test. Admissions to such candidates are open throughout the academic year.

3.3.2 ELIGIBILITY CRITERIA FOR TEACHERS FOR ADMISSION TO Ph. D. (Tech.) / Ph. D. (Sci.):

Following are the requirements in addition to the criteria mentioned under heading 3.3.1. above.

- a) The candidate should be a permanent teacher having full time teaching experience of at least two years in Degree College or five years in Junior college / Diploma College / Polytechnics (affiliated to statutory bodies).
- b) Teachers who have been in the service of any Engineering and Technology College approved by the UGC/AICTE are entitled for registration for Ph. D. (Tech.) with the faculty of the ICT.
- c) Teachers who have been in the service of any Science College approved by the UGC are entitled for registration for Ph. D. (Sci.) with the faculty of the ICT.
- d) The college management should undertake the responsibility of releasing the candidate for coursework, experimental work or discussions with the concerned research guide from time to time. A proper time table should be prepared by the concerned teacher and his supervisor, which will be approved by the Head of Department/ Centre Co-ordinator. A bond in this regard should be signed and approved by the Vice Chancellor, ICT.
- e) Teachers can work in the ICT laboratories during vacations and holidays and after their office hours if they come from colleges in the city or nearby. They must indicate on which date they will avail of the research facilities in ICT. A proper log book must be maintained by the candidate duly signed by his supervisor which will be authenticated by the Head of Department/ Centre Co-ordinator.
- f) A maximum period of 5 years extendable by 1 year will be allowed in case of teachers who carry out research part time but put in at least 3 months' full time work in a year in the ICT labs. In such cases, part of the experimental work could be allowed to be done in their premises for which their management will provide them with necessary facilities. The characterization and other sophisticated analysis must be done in

ICT. Exclusive theoretical work should be discouraged as much as possible to give the teachers a hands-on experience and to bring them into an environment of research. However, this will be left to the individual supervisor's discretion, who should take abundant precaution to avoid unethical practices.

- g) The registered candidates will be required to publish or patent some part of their work within two years of the registration otherwise this registration will not be continued. The publication must be done in peer reviewed international journals. Multi-authored papers without much input from the teacher should be avoided. Conference proceedings which are not peer reviewed will not be considered as publications.
- h) Teachers registering themselves as Ph.D. student of ICT should not register any Masters students with themselves in his/her own college to avoid research by proxy. The candidate as well as his/her supervisor must give an undertaking, with a counter signature of the concerned principal to this effect to avoid degeneration of this novel concept into a Ph.D. by unscrupulous means.
- i) If the teacher intends to join the ICT on leave without pay for a period of three years, then the candidate may be eligible for the UGC fellowship under our SAP programme, provided he/ she successfully clears the Institutional entrance tests.
- j) All regular admissions criteria are applicable to these candidates and they must also do the course work required for Ph.D. programme.

3.3.3 - ELIGIBILITY CRITERIA FOR CANDIDATES WORKING IN NATIONAL LABORATORIES/ GOVERNMENT INSTITUTIONS FOR ADMISSION TO Ph. D. (Tech.) / Ph. D. (Sci.)

Following are the requirements in addition to the criteria mentioned under heading 3.3.1. above.

- a) The candidate should be a permanent employee working in National Laboratories/ Government Institutions having minimum 2 years of service.
- b) The management of the organisation should undertake the responsibility of releasing the candidate for course work, experimental work or discussions with the concerned research guide from time to time. A proper time table should be prepared by the concerned candidate and his supervisor, which will be approved by the Head of

Department/ Centre Co-ordinator. A bond in this regard should be signed and approved by the Vice Chancellor, ICT

- c) Such candidates can work in the ICT laboratories during holidays and after their office hours if they come from organisation in the city or nearby. They must indicate on which date they will avail of the research facilities in ICT. A proper log book must be maintained by the candidate duly signed by his supervisor which will be authenticated by the Head of Department/ Centre Co-ordinator.
- d) The registered candidates will be required to publish or patent some part of their work within two years of the registration otherwise this registration will not be continued. The publication must be done in peer reviewed international journals. Multi-authored papers without much input from the teacher should be avoided. Conference proceedings which are not peer reviewed will not be considered as publications.
- e) All regular admissions criteria are applicable to these candidates and they must also do the course work required for Doctoral programme.

3.3.4 ADMISSION FOR INDUSTRY -SPONSORED IN-HOUSE CANDIDATES TO Ph.D. (Tech.) / Ph.D. (Sci.)

Following are the requirements in addition to the criteria mentioned under heading 3.3.1. above.

1. The candidate should have minimum 2 years of industrial experience.
2. Industry should have a well-equipped Research and Development and Quality Control laboratory with at least one Ph.D. employee working in the set up in the relevant area.
3. Industry is required to get recognition from ICT by the following procedure:
 - i. After receiving request from an industry, a Committee appointed by the Vice Chancellor, ICT will make a visit to the industry laboratory. The ICT appointed Committee will consist of Dean (RCRM) as Chairman with a Professor nominated by the Vice Chancellor and the Head of the Department in the area of proposed research.
 - ii. The committee will evaluate the activities and the competence of the R and D of industry following the guidelines of similar to those proposed by DSIR. All the expenses in connection with the visit will be borne by the industry concerned. The ICT committee will make

recommendations to the Vice Chancellor, ICT for approval. The industry R and D will be recognized by the approval of the Vice Chancellor, ICT. In case the laboratory is already recognized by DSIR, the visit by ICT committee will not be necessary.

- iii. Once the R and D laboratory is recognized by the ICT, the industry is required to pay Rs. 5 lakhs for first four years (typical duration of Ph.D. work) and necessary contingency amount of Rs. 50,000/-per candidate per year (in the name of ICT, to be utilized by the Research Guide) for the conduction of the research activity. After four years, the renewal of the recognition will continue by payment of Rs. 1 lakh per year. Further, the industry should try to get recognition for their R and D set up from DSIR, based on the recommendation of the ICT appointed Committee.
4. During a year, an industry may nominate up to two employees (with required qualification) for registering for the doctoral degree at ICT under the supervision of ICT faculty.
5. The candidate is required to pay all the Ph.D. fees (over and above laboratory eligibility fees) as proposed by the ICT at appropriate time and will not be eligible for any fellowship. Also, the other requirements, like eligibility criteria, qualifying institutional tests, completion of course work, etc. need to be fulfilled by the industry candidate.

3.4 FEES, CONCESSIONS, CANCELLATIONS AND REFUND

3.4.1 FEES PRESCRIBED:

The candidates admitted 2019-20 are required to pay fees as prescribed by the State Government. The institutional fees to be paid by all the admitted candidates are as follows: Ph.D. (Tech.)/ Ph.D. (Sci.)

Sr. No.	Type of Fees	Open and all reserve category students fee for 1 st year (₹)
1	Library Deposit	5,000
2	Fees	76,000
	Total	81,000

*In addition to above mentioned fee candidate will have to pay Rs. 20,000/- per year as contingency.