Master of Technology (M.Tech.) in Industrial Metallurgy

Punjab Engineering College University of Technology - (PEC, Chandigarh)

2 Years | Post Graduate | Full Time

APPLY NOW

Master of Technology (M.Tech.) in Industrial Metallurgy

The **Master of Technology (M.Tech.) in Industrial Metallurgy** aims to enhance students' understanding of core areas of the discipline. The curriculum is designed keeping in mind the requirements of the Indian industry and R&D institutions. It is typically spread over four semesters with each semester lasting six months. Students take 11 courses over the course of the degree, culminating in a one-year project.

Admission to the course is strictly competitive. Most IITs and NITs prefer students who have cleared the GATE exam or have an equivalent exam. However, some engineering institutes allow direct admission based on the performance of the Class XII board exam. Shortlisted students need to attend counseling sessions after clearing the entrance examination. The Master of Technology MTech program in industrial metallurgy helps students develop a solid understanding of theoretical concepts and practical applications. Regular guest lectures and workshops are conducted by domain experts.

M.Tech in Industrial metallurgy students gain knowledge in metallurgical processes and the design of metals. Students who specialize in this area are well-prepared to work with manufacturing enterprises, metallurgical process plants, and nuclear research establishments. After completing the program, they can pursue a Ph.D. course at top institutions like IITs or Harvard University. They can also work as professors in colleges or universities, pursuing further studies in their field.

Benefits of Master of Technology (M.Tech.) in Industrial Metallurgy

Among the many benefits of pursuing a **Master of Technology (M.Tech.) in Industrial Metallurgy**, one of the most important is that it is possible to pursue the course without leaving the place of work. You need to have a B.E./B.Tech degree with a minimum of 50% aggregate and Associate Membership from a professional body. In addition, you should have two years of industrial experience to qualify for this degree. To acquire this degree, you must complete eleven courses and one-year projects.

The MSME department offers an online M.Tech. in industrial metallurgy program. For more information, you can go through the MSME department brochure. This degree program will teach you the latest techniques in the field of metallurgy and provide you with the necessary training for a successful career. After graduation, you can choose from several career options in the industrial metallurgy field.

The curriculum of BTech + MTech metallurgical and materials science is structured for 5 years. The program focuses on the areas of Physical Metallurgy, Powder Metallurgy, and Manufacturing Processes. In addition to this, it also includes courses in computer science, life sciences, and computational materials. This degree will provide you with the advanced knowledge necessary to become a successful industrial metallurgist.

The course takes about two years to complete. The benefits of **M.Tech in Industrial Metallurgy** include the opportunity to specialize in engineering and develop technical skills. The MTech degree is a versatile and rewarding degree for those who wish to pursue a career in the industrial metallurgy industry. This degree allows you to work on projects in your own industry, or in an R&D organization.

Future Scope of Master of Technology (M.Tech.) in Industrial Metallurgy

An engineering technocrat is someone who takes the work culture to the next level. Although it is not necessary to be an expert in the same domain, a degree from an M.Tech program can help you become one. M Tech programs offer various specializations and cater to the specific interests of certain aspirants. Here is a look at the future scope of the Master of Technology MTech in Industrial Metallurgy.

Those who pursue an **M.Tech in Industrial Metallurgy** will gain in-depth knowledge about the field. They will be trained to develop metallurgical systems and address issues of material degradation and safety. Students with an undergraduate degree in metallurgical engineering can enroll in this program and pursue careers in many different fields. Graduates of this program can also choose a general interest track and pursue a specialization in areas such as nanoscale engineering, ceramics, or electro-optics.

In addition to working for a company as an engineer, M.Tech graduates can pursue their studies at research institutes and universities abroad. Many reputed institutes hire metallurgical engineers as 'Research Fellows' or 'Project Assistants'. Indian Institute of Technology, Kharagpur, recently invited applications for junior research fellow positions. Those with a valid GATE/NET score can apply.

The scope of a career in metallurgy is endless in terms of research and application. From mining and ore extraction to purification and alloying, metallurgical engineering covers a broad spectrum of activities. The field also deals with the identification of different levels of metals. With so many potential areas for employment, an MTech in industrial metallurgy degree will open new doors.

Career Opportunities of Master of Technology (M.Tech.) in Industrial Metallurgy

After graduating with a **Master of Technology (M.Tech.) in Industrial Metallurgy** program, you can pursue a variety of exciting career opportunities. As a metallurgist, you'll develop skills in research, manufacturing, and more. This degree program will help you build the knowledge and expertise needed to excel in any position in the industry. In addition to metallurgical engineering, you can also specialize in one or more of the many types of metals, including steel, aluminum, ceramics, and more.

Graduates with an M.Tech in industrial metallurgy can choose from numerous job profiles. Career options in the field include welding, materials science, ballistics, plant equipment, and quality planning. These fields can be applied to almost any industry, from aerospace and defense to manufacturing and construction. The list of career options is nearly endless. You'll likely find work in the areas of materials science and engineering, which can be found in a wide range of industries.

Graduates of **M.Tech in industrial metallurgy** programs can enter a variety of industries, ranging from metallurgical engineering to construction management. Many employers will hire graduates with any degree subject, including those with a Master's degree, as long as they have applied their academic knowledge in the workplace. This makes the industry a more attractive prospect for employers. There are many advantages to working in the industry.

Campus

Chandigarh

University

Punjab Engineering College

Delivery Mode

Eligibility

B. Tech/ BE in the same stream from a recognized Institute

Duration

2 Years

Type of Course

Post Graduate

Syllabus of Master of Technology (M.Tech.) in Industrial Metallurgy

1st Year OR 1st & 2nd Semester Syllabus of Master of Technology (M.Tech.) in Industrial Metallurgy

S.no	Subjects
1	Engineering Mathematics
2	Physical Metallurgy
3	Welding processes
4	Foundry Technology
5	Metallography Laboratory
6	Corrosion Engineering

Students also visited

- Maharaja Ranjit Singh Punjab Technical University, Bathinda ...
- Indian Institute of Science Education and Research, Mohali (IISER Mohali), Sahibzada Ajit Singh Nagar...
- Bhutta College of Engineering and Technology (BCET, Ludhiana), Ludhiana...
- Guru Nanak Institute of Management And Technology (GNIMT, Ludhiana), Ludhiana...
- Gujranwala Guru Nanak Institute of Management And Technology (GGNIMT, Ludhiana), Ludhiana...
- Ludhiana College of Engineering And Technology (LCET, Ludhiana), Ludhiana...
- Institute of Nano Science and Technology (INST, Mohali), Mohali...
- Sidana Institute of Management And Technology (SIMT, Amritsar), Amritsar ...
- Global Institute of Management (GIM, Amritsar), Amritsar ...
- Bebe Nanaki University College (BNUC Kapurthala), Kapurthala ...

7	Special Casting Processes
8	Metal Forming Processes

2nd Year OR 3rd & 4th Semester Syllabus of Master of Technology (M.Tech.) in Industrial Metallurgy

S.No	Subjects
1	Mechanical Behaviour of Materials
2	Metallurgical Failure Analysis
3	Project
4	Comprehensive Viva

Punjab Engineering College University of Technology - (PEC, Chandigarh) Highlights

Established in	1953
University Type	Deemed University
Recognized by	AICTE , NAAC ,
Courses	24