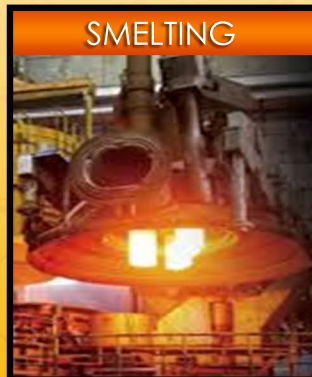
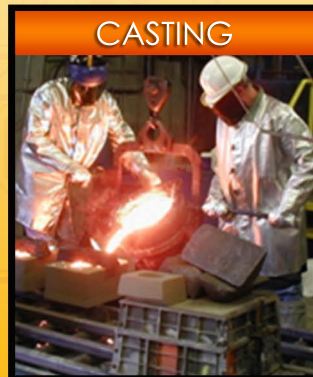
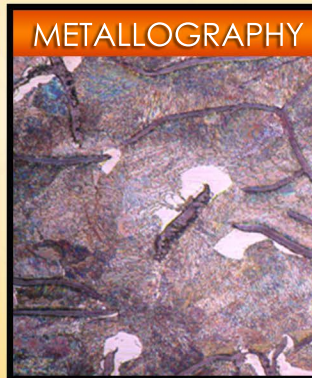
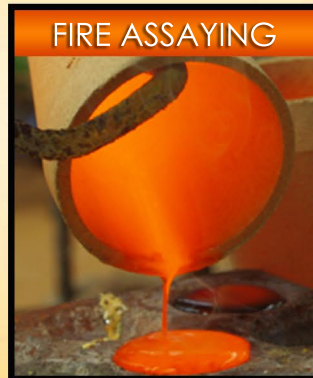
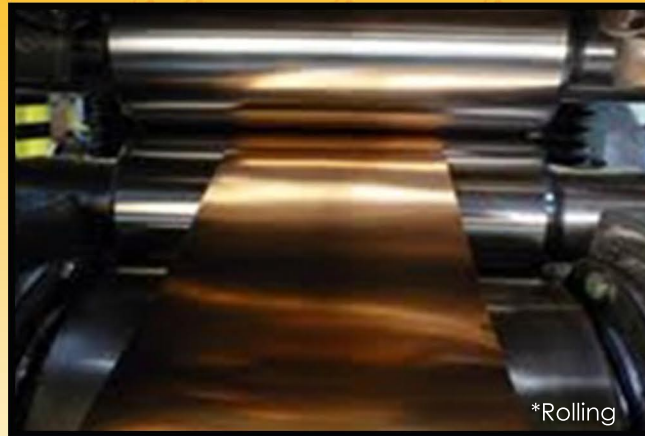


## Employment Opportunities

- Mining, metal processing and manufacturing companies
- Consulting engineering firms
- Research and Development Institutions
- Academe
- Metallurgical Testing/Mineral Processing Laboratories

## Metallurgical Engineer



[www.prc.gov.ph](http://www.prc.gov.ph)

The **PROFESSIONALS**



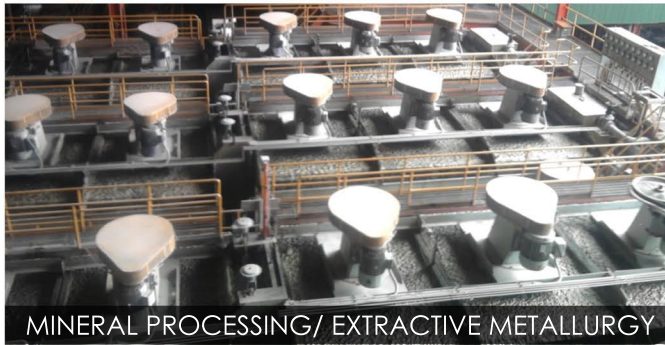
## Metallurgical Engineer

Be the best  
**MAKE A DIFFERENCE**



# Metallurgical Engineer

A Metallurgical Engineer is a professional in the field of engineering that deals with extracting minerals/metals from their ores and recyclable materials, and creating and forming a multitude of objects from these minerals/metals or in combination with other materials to produce objects for human use.



MINERAL PROCESSING/ EXTRACTIVE METALLURGY



PHYSICAL/ADAPTIVE METALLURGY

The profession is divided into two (2) major fields: extractive/process metallurgy, which is concerned with mineral processing and recovery of metals; and physical/adaptive metallurgy, which involves the alloying of metals together, shaping and forming, fabrication, heat treatment, joining, corrosion protection and testing of metals.

## Functions

- Conduct studies, design, develop and specify processes and machineries to concentrate, extract, refine and process minerals and metals from ores.
- Coordinate production testing and control of mineral processing, metal refining, smelting or foundry operations
- Conduct studies on the properties and characteristics of metals to be able to develop and specify processes for molding, shaping, forming and thermal treatment of metals, alloys and metallic systems.
- Conduct chemical and physical analytical studies and failure analyses to recommend metal selection, design, corrosion control measures, operational testing and other procedures.

## Skills and Competencies

- A good grasp of mathematics, chemistry and physics;
- Able to communicate well in oral, written and graphic forms
- Able to identify, analyze and solve complex engineering problems;
- Practical and creative;
- Strictly adhere to the safety requirements of the operation;
- Able to design metallurgical processes which have little impact on the environment

- Able to think and act decisively;
- Demonstrate practical engineering knowledge, skills and familiarity with techniques, tools, materials, devices and systems in applied metallurgical engineering;
- Able to function in a multi-cultural and multi-disciplined team

## Basic Educational Requirement

A five-year Bachelor of Science (BS) in Metallurgical Engineering or BS in Material Science and Engineering Major in Metallurgy is the minimum educational requirement for a career in this field. Practice of profession requires passing the licensure examination given by the Professional Regulation Commission (PRC).

## Cost of Education

The cost of a five-year bachelor's degree in Metallurgical Engineering ranges from Php 15,000 to Php 25,000 per semester at the Mindanao State University-Iligan Institute of Technology and the University of the Philippines, Diliman. A four year bachelor's degree in Materials Science and Engineering major in Metallurgy ranges from Php 25,000 to Php 35,000 per quarter term at Mapua Institute of Technology. These are the only schools offering degrees required for Metallurgical Engineering profession.