

Every engineering task, whether building a structure, constructing a plant or designing an automobile starts with choosing the right materials for the job. The **Department of Mining, Metallurgical, and Materials Engineering** begins at the very top of the line, where everything else in the engineering design process depends.

**Because it all begins with us.**



mining

## MINING ENGINEERING

Extraction of valuable earth materials from the crust requires extensive technical know-how, as many factors must be considered. A mining operation must extract high-grade minerals from the earth while maintaining a risk-free and environment-friendly mining operation. DMMME takes pride in molding the finest engineers who ensure quality, safety, and social responsibility of mining operations.



metallurgy

## METALLURGICAL ENGINEERING

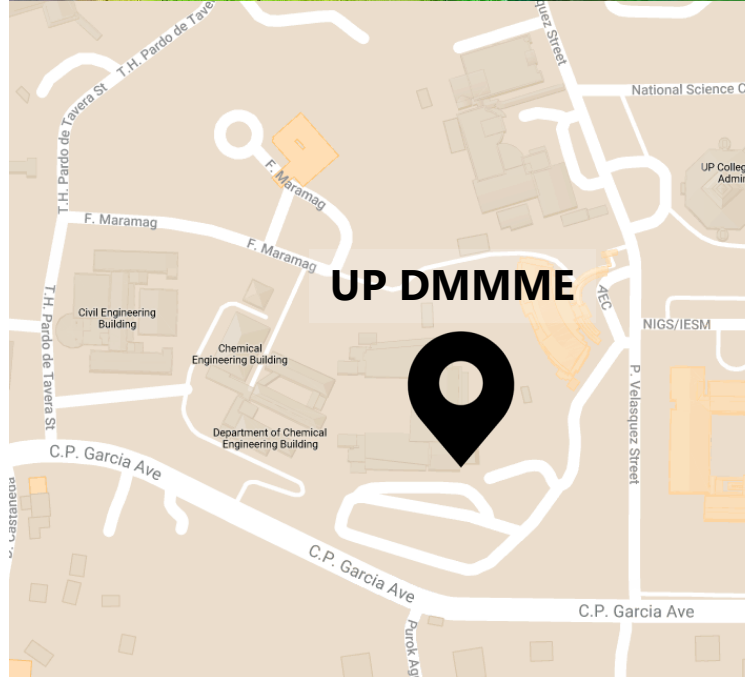
Metallurgical engineering specializes in the extraction of valuable metals from minerals. The discipline also includes refining, purification, property modification, and forming of metals into useful products for various industries such as manufacturing, construction, aerospace and medical industries. Graduates of the program acquire in-depth theoretical and hands-on mastery of chemical and physical systems involving precious and industrial metals.



materials

## MATERIALS ENGINEERING

In order to address the ever-changing demands of modern society for better products, materials must be constantly developed and reinvented. Materials engineering provides the tools necessary to improve the properties, processing, and performance of metals, polymers, ceramics, and smart materials for a wide variety of applications. Such innovations pave the way for technological progress in the country. This program would provide specialized training in the characterization, processing and applications of engineering materials in support of the growing engineering materials engineering field locally and globally.



## CONTACT US!

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### We are online!

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# UNIVERSITY OF THE PHILIPPINES DEPARTMENT OF MINING, METALLURGICAL AND MATERIALS ENGINEERING



extract.



transform.



innovate.

## COURSES OFFERED

### UNDERGRADUATE PROGRAMS

#### BS Mining Engineering

100% Passing in Board Exam for 7 straight years

#### BS Metallurgical Engineering

Consistently the top-performing school in PRC Board Exam

#### BS Materials Engineering

The first and most comprehensive degree program of its kind in the Philippines

### GRADUATE PROGRAMS

#### MS Metallurgical Engineering

The only graduate degree in metallurgical engineering in the country. The MS Metallurgical Engineering program has two tracks: Extractive Metallurgy and Physical Metallurgy

#### MS Materials Science and Engineering

Jointly offered with the College of Science, University of the Philippines Diliman

#### PhD Materials Science and Engineering

Jointly offered with the College of Science, University of the Philippines Diliman, and the only doctorate degree in the field of Materials Science and Engineering in the Philippines



## FACULTY AND STAFF PROFILE

### 44 FACULTY MEMBERS

2 Professor Emeritus, 6 Professors, 6 Associate Professor, 15 Assistant Professors, 2 Professorial Lecturer, 7 Senior Lecturers, 5 Instructors, 1 Lecturer

### 18 ADMINISTRATIVE & RESEARCH STAFF

## VISION

A leading academic and research institution on mining, metallurgical, and materials engineering that employs multidisciplinary holistic approach for national and global progress.

## MISSIONS

To provide top-quality EDUCATION in mining, metallurgical, and materials engineering using advanced facilities through high-caliber and internationally recognized faculty members;

To foster INGENUITY and PRODUCTIVITY on sustainable and clean mineral and metal extraction technologies; synthesis, processing, and characterization of smart and functional materials and materials for energy from indigenous resources;

To render socially-relevant and exceptional PROFESSIONAL SERVICES in mining, metallurgical, and materials engineering through dynamic and competent faculty members and

## Why MMME?

### Because everything begins with us.

Our graduates are in demand in a wide range of industries essential to nation-building. Expertly trained mining, metallurgical, and materials engineers command a high price in the current job market.

Employment opportunities include, but are not limited to:

#### Mining Engineering

Explosives Engineer  
Operations Engineer  
Mine Safety Engineer

#### Metallurgical Engineering

Process Engineer  
Corrosion Engineer  
Mill and Plant Manager

#### Materials Engineering

Failure Analyst  
Product Development Engineer  
Microelectronics Packaging Engineer

## RESEARCH

### RESEARCH THRUST AREA: Scope of Research

#### Responsible Extraction Technologies of Materials

Mineral or ore characterisation, Mineral and metal extraction, Tailings/waste utilization, rehabilitation/remediation, and reprocessing; social and economic impact of mining and extraction activities, health and safety, and materials recovery

#### Enabling Technologies

Plasma-assisted processes, nanomaterials synthesis and micro-nano structure fabrication, ionic liquids and deep eutectic solvents, computer-based (calculations, modeling, simulation, and artificial intelligence-facilitated) studies, and novel measurement techniques

#### Materials for Energy

Materials for energy generation and harvesting, materials for energy conversion, materials for energy transport and storage, advanced materials for sustainable and renewable energy applications

#### Ecomaterials

Biobased packaging materials and bioplastics (derived from organic sources), materials valorization, recyclable materials, naturally-occurring materials, green technologies, materials free from hazardous substances, materials manufactured with low energy consumption and in clean conditions, materials that purify contaminated water and air

#### Biomaterials

materials for prostheses and implants (e.g. transtibial prosthesis, external fixators, 3D printed articular cartilage, SMA materials for stent application, dental biomaterials); materials for medical treatment (e.g. wound dressing and healing, antibacterial gels, drug delivery systems, abdominal wall defect closure, Rebirth); materials for diagnosis (e.g. medical sensors, phantom models for ultrasound); materials for protective devices (e.g. facemasks, medical cleaning/disinfection devices)

## SCHOLARSHIPS

Several private companies and government agencies offer scholarships for DMMME students. Study with us and avail of numerous tuition discounts and allowances!

#### Filminera Resources Corp.

#### Phil. Gold Processing & Refining Corp.

#### Philsaga Mining Corp

Department of Science and Technology  
Engineering Research and Development for Technology  
...and more!