

# Mineral Processing & Extractive Metallurgy (MPEM)

---

---

A minimum of 18 credits, 6 courses, are needed to complete the MPEM Minor program. This is the preferred route for students that would like to specialize in MPEM engineering. The first three (required) courses will provide the students with basic knowledge in the field. The subsequent courses will give students a further view into specific areas of expertise.

## Required for all students\*:

MNGN210	INTRODUCTORY MINING	3.0
MNGN322	INTRODUCTION TO MINERAL PROCESSING AND LABORATORY	3.0
MNGN323	INTRODUCTION TO EXTRACTIVE METALLURGY	3.0

At least three courses from the following list are also required for the MPEM Minor.

MNGN426	HYDRO- AND ELECTRO-METALLURGY	3.0
MNGN432	PYROMETALLURGY	3.0
MNGN452	SOLUTION MINING AND PROCESSING OF ORES	3.0
MNGN461	METALLURGICAL TRANSPORT AND RATE PHENOMENA	3.0
MNGN462	SOLID WASTE MINIMIZATION AND RECYCLING	3.0

**Total Required Credits for the MPEM Minor: 18**

## Primary Contact

Bill Zisch, Mining Engineering Department Head  
<https://mining.mines.edu/>