



The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

**METALLURGICAL ENGINEERING
COURSE EQUIVALENTS
2010 EDITION**

Note: No metallurgical engineering courses are offered at the University of Calgary.
The list below is for the University of Alberta.

University of Alberta

10-MET-A1 Metallurgical Thermodynamics

MAT E 301 Materials Engineering Thermodynamics

10-MET-A2 Metallurgical Rate Phenomena

CH E 312 Fluid Mechanics

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CH E 314 Heat Transfer

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MAT E 464 Materials Process Engineering Design

10-MET-A3 Metal Extraction Processes

MAT E 341 Applied Electrochemistry

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CME 421 Mineral Processing

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CME 472 Extractive Metallurgy

10-MET-A4 Structure of Materials

MAT E 211 Characterization of Materials

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MAT E 335 Phase Transformations I

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MAT E 362 Materials Engineering Laboratory II

10-MET-A5 Mechanical Behaviour and Fracture of Materials

MAT E 351 Mechanical Properties

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MAT E 461 Materials Engineering Laboratory III

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MAT E 462 Introduction to Fracture of Materials

10-MET-A6 Phase Transformation & Thermal Treatment of Metals and Alloys

MAT E 336 Phase Transformations II

10-MET-A7 Corrosion and Oxidation

MAT E 345 Corrosion and Oxidation

10-MET-B1 Mineral Processing

CME 421 Mineral Processing

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CME 422 Interfacial Engineering in Mineral Processing

10-MET-B2 Hydrometallurgy and Electrometallurgy

CME 472 Extractive Metallurgy provides an introduction.

10-MET-B3 Ironmaking and Steelmaking

CME 472 Extractive Metallurgy provides an introduction.

10-MET-B4 Non-Ferrous Extractive Metallurgy

CME provides an introduction.

10-MET-B5 Metal Fabrication

MAT E 473 Shaping and Treating of Materials

10-MET-B6 Physical Metallurgy of Iron and Steel

MAT E 476 Microalloyed Steels provides about half of the material

10-MET-B7 Physical Metallurgy of Non-Ferrous Metals and Alloys

No equivalent course

10-MET-B8 Ceramic Materials

MAT E 471 Ceramics

10-MET-B9 Structure and Properties of Polymers

CME 482 Fundamentals of Polymers

10-MET-B10 Advanced Electronic Materials

MAT E 491 Functional Properties