ELECTRIC ARC FURNACE
Short courses

COURSE OVERVIEW

The Electric Arc Furnace (EAF) course will provide a theoretical, practical and operational insight into steelmaking. This will include classroom lectures & discussion groups. The theoretical aspects will be applied to case studies.

INSTRUCTORS

Alberto N. Conejo: Professor at the University of Science and Technology Beijing (USTB) in China. Previously Professor at Morelia Technological Institute in México for 30 years. He worked as a consultant for several steel plants in México for more than 20 years. Received several awards including the 2010/2011 National award from the Steel Chambers Association for his work on slag foaming, the 2005 Michoacán state award on Technology for his work on optimization of EAF metallurgical practices and the 2002 Charles W. Briggs award from the Iron and Steel Society in the USA for best research in the Electric Arc Furnace. Since 2017 is member of the editorial board of Metallurgical Research and Technology. He has provided training to the steel industry for more than 1500 men-hours.

LEARNING OUTCOMES

- This course will provide with an overall knowledge of the EAF process
- After the course you will have an understanding of the fundamental principles and practical aspects of steelmaking in the Electric Arc Furnace.
- After the course you will be able to provide ideas to improve the current metallurgical practices in your steel shop.

COURSE PROGRAM

1. Development of the Electric Arc Furnace
2. Description of equipment and ancillary equipment
3. Scrap: Metallurgical characteristics, EAF operation with scrap
4. Direct Reduced Iron (DRI): Metallurgical characteristics, EAF operation with DRI.
5. Hot metal: Metallurgical characteristics, EAF operation with hot metal and pig iron
6. Ancillary raw materials
7. Melting rate and control of temperature
8. Metallurgical aspects: Decarburization, Dephosphorization and slag control
9. Energy consumption: how to decrease electric energy
10. Discussion of metallurgical practices to improve metallic yield

WHO SHOULD ATTEND

Engineers (process engineers, production engineers, quality control engineers, etc.) and management involved in EAF steelmaking, students of metallurgy, lecturers in metallurgy, suppliers of raw materials and equipment

COURSE VENUE

University of Science and Technology Beijing (USTB)
School of Metallurgical and Ecological Engineering
30 Xueyuan Road, Haidian District, Beijing 100083 P. R. China

COURSE DURATION

There are two short courses;

- Short course I: 16 hours. This course is an introduction to EAF steelmaking
- Short course II: 40 hours. This course covers in more detail EAF steelmaking based on the technical program outlined before.

INVESTMENT (COST):

Upon request

CONTACT INFORMATION

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