



# E-Learning Product Catalogue

# Index

## Mechanical

◊ Bearing	2	◊ Theory Of Machines And Mechanisms	6
◊ Centrifugal Pumps	2	◊ Levelling And Alignment	6
◊ Compressors	2	◊ Limits Fits And Tolerances	6
◊ Coupling	2	◊ Industrial Hydraulics	7
◊ Conveyor Belt Maintenance	3	◊ Industrial Piping System	7
◊ Industrial Valves	3	◊ Industrial Pneumatics	7
◊ Industrial Water System	3	◊ Lubrication Systems	7
◊ Condition Diagnostic Techniques And Inspection	3	◊ Engineering Drawing	8
◊ Mechanics Of Solids	4	◊ Measuring Instruments	8
◊ Manufacturing Technology	4	◊ Gas Cutting	8
◊ Industrial Engineering	4	◊ Introduction To Electrohydraulic	8
◊ Heat Transfer	4	◊ Illumination Engineering	9
◊ Fluid Mechanics	5	◊ Milling Machine	9
◊ Material Science	5	◊ Pressure Control Valves and Cartridge Valves	9
◊ Power Plant Engineering	5	◊ Pump Control and Open and Closed Loop Hydraulic Circuits	9
◊ Thermodynamics	5	◊ Proportional Hydraulics	10
◊ Machine Design	6	◊ Servo Hydraulics	10

## Mechanical / Metallurgy

◊ Heat Treatment	10
------------------	----

## Metallurgy

◊ Basic Metallurgy	10	◊ By Product Plant Gas Processing	15
◊ Bulk Material Handling	11	◊ Hot Strip Mill Equipment And Process Flow	15
◊ Desulphurization	11	◊ Primary Steel Making	15
◊ Fuel And Combustion	11	◊ Refractories And Heating	15
◊ Heat Balance	11	◊ Hot Strip Mill Equipment and Process Flow	16
◊ Blast Furnace Refractory	12	◊ Thin Slab Casting And Rolling Operation	16
◊ Pellet Making Process And Its Quality Control	12	◊ Raw Material Bedding & Blending	16
◊ Hot Rolling Fundamentals	12	◊ Fundamentals Of Metallurgy	16
◊ By Product Plant Liquor Processing	12	◊ Iron Making	17
◊ Secondary Steel Making	13	◊ Physical Metallurgy	17
◊ Mills Refractory	13	◊ Powder Metallurgy	17
◊ Fundamentals of Long Product Rolling	13	◊ Steel Making	17
◊ Coke Making - Quenching And Coke Handling	13	◊ Fuel Furnace And Refractory	18
◊ Coke Oven Battery Essentials	14	◊ Material Testing	18
◊ Hot Metal Torpedo Tilting Operation And Maintenance	14	◊ Mechanical Metallurgy	18
◊ Sinter Making Operation	14	◊ Nonferrous Extractive Metallurgy	18
◊ Hot Strip Mill Quality Control and Defects	14	◊ Metallurgical Thermodynamics	19

## Electrical and Electronics

◊ Power System Generation	19	◊ High Voltage Engineering	22
◊ Power System Protection	19	◊ Sensors and Transducers	23
◊ Power Systems Power Cables	19	◊ A C Machines	23
◊ Power System Earthing	20	◊ Basic Electronics	23
◊ Power Transmission And Distribution	20	◊ Digital Electronics	23
◊ Induction Motors	20	◊ D C Machines And Transformers	24
◊ Fan And Blower	20	◊ Electrical Power Generation	24
◊ Indian Electricity Rules	21	◊ Electrical Power Transmission & Distribution	24
◊ Process Instrumentation	21	◊ Fundamentals Of Electrical Engineering	24
◊ Synchronous Machines	21	◊ Power Electronics And Drives	25
◊ Transformers	21	◊ Instrumentation	25
◊ PLC Basics	22	◊ Switchgear And Protection	25
◊ Basics of Distributed Control Systems	22	◊ Microprocessors And Microcontrollers	25
◊ Electrical Maintenance and Practices	22		

# Index

## Mining

- ◊ Mining First Aid
- ◊ Opencast Blasting
- ◊ Opencast Drilling
- ◊ Opencast Mine Maintenance
- ◊ Coal Processing & Dispatch (Coal Beneficiation & Despatch)
- ◊ Mining Gas Testing
- ◊ Opencast Mine Planning Geology
- ◊ Opencast Mine Planning Survey
- ◊ Mining Haulage And Hoist
- ◊ Opencast Mine Safety
- ◊ Ore Processing & Despatch
- ◊ Underground Coal Loading And Evacuation

- 26 ◊ Underground Blasting 29
- 26 ◊ Underground Coal Mining Process And Working Method 29
- 26 ◊ Underground Dressing 29
- 26 ◊ Underground Face Machinery 29
- 26 ◊ Underground Drilling 30
- 27 ◊ Underground Face Ventilation 30
- 27 ◊ Underground Inspection And Examination 30
- 27 ◊ Underground Mine Planning (Surveying) 30
- 27 ◊ Underground HEMM Operation & Maintenance 31
- 28 ◊ Underground Stowing 31
- 28 ◊ Underground Supporting 31
- 28
- 28

## IT / CS

- ◊ MS Office
- ◊ Advanced Microsoft Excel
- ◊ Basic Statistics For Data Science
- ◊ Advanced Statistics For Data Science

- 31 ◊ Machine Learning Fundamentals 32
- 32 ◊ Blockchain Introduction 33
- 32 ◊ Tableau Fundamentals 33
- 32

## Safety

- ◊ Barricading Safety Standard
  - ◊ Belt Conveyor System Safety Standard
  - ◊ Code of Traffic Rule in Mine
  - ◊ Contractor Safety Management
  - ◊ Cranes Safety Standard
  - ◊ Earthing System
  - ◊ Eliminating Electrical Fire & Electrocution in Low Voltage
  - ◊ Excavation
  - ◊ Fire Safety Management
  - ◊ Material Storage and Handling
  - ◊ Welding and Cutting Safety Standard
  - ◊ Mobile Crane
- 33 ◊ Positive Isolation 36
  - 33 ◊ Rigging Equipment Safety Standard 36
  - 34 ◊ Working in Confined Space 37
  - 34 ◊ Scaffolding Integrated Safety Standard 37
  - 34 ◊ Standard Operating Procedure (SOP) 37
  - 34 ◊ Strata Control in Underground Coal Mines 37
  - 35 ◊ Temporary Electrical Wiring 38
  - 35 ◊ Transportation Safety 38
  - 35 ◊ Work Permit System 38
  - 35 ◊ Working at Heights 38
  - 36 ◊ Working in Electrical Room 39
  - 36 ◊ Working on Gas Line 39

## Ethics

- ◊ Anti Bribery & Anti Corruption Training
- ◊ Anti-Money Laundering

- 39 ◊ Prevention of Sexual Harassment 40
- 39 ◊ Social Media Guidelines 40

## Industry 360

- ◊ Emission Pollution And Control
- ◊ Industry 4.0

- 40 ◊ English Proficiency 41
- 40

## Quality Management

- ◊ Total Quality Management
- ◊ TQM Policy Management
- ◊ TQM Employee Involvement Initiatives

- 41 ◊ TQM Daily Management 42
- 41 ◊ QA and QMS 42
- 41 ◊ Fundamentals of Problem Solving and Task Achieving 42

## Quality Management

- ◊ Becoming An Entrepreneur
- ◊ Building Customer Focus In Your Team
- ◊ Conducting Effective Performance Reviews
- ◊ Develop Your Creative Thinking
- ◊ Developing Collaboration In Your Team
- ◊ Demystifying Project Management
- ◊ Design Thinking Of Powerful Solutions
- ◊ Effective Prioritization And Time Management
- ◊ Effective Talent Management
- ◊ Enhancing Customer Value Through Solution Selling
- ◊ Enhancing Your Personal Effectiveness
- ◊ Financial Analysis For Decision Making
- ◊ Establishing And Leading A Remote Team
- ◊ Enhancing Your Selling Skills
- ◊ Fostering Team Learning

- 42 ◊ Happiness At Work 46
- 43 ◊ Essentials Of Lean Management 46
- 43 ◊ Leveraging Emotions To Enhance Your Effectiveness 47
- 43 ◊ Manager As A Coach 47
- 43 ◊ Managing In An Agile Organization 47
- 44 ◊ Performing Effectively As A First Time Manager 47
- 44 ◊ Recruiting And Retaining Best Talent 48
- 44 ◊ Productively Engaging Your Team 48
- 44 ◊ Step Up Your Communication Skills 48
- 45 ◊ Shaping A Delightful Customer Experience 48
- 45 ◊ Successful Key Account Management 49
- 45 ◊ Successful Remote Working 49
- 45 ◊ Successful Digital Marketing 49
- 46 ◊ Stepping Up Your Team Performance 49
- 46 ◊ Unleashing The Potential Of Sales Team 50

# Introduction

## About TATA Steel

Tata Steel was established in India as Asia's first integrated private steel company in 1907. With this, Tata Steel also developed India's first industrial city at Jamshedpur. Today, it is among the leading global steel companies - authoring innovations, pioneering practices, and developing a world class team of committed employees. In its journey towards excellence, Tata Steel has developed its strengths in diverse areas such as Exploration and Mining, Technology and Best Practices, Human Resource Management, Organization Efficiency, Research and so on.



## TATA Steel Industrial Consulting

Tata Steel Industrial Consulting, the industrial consulting arm of Tata Steel brings to the table the experience and expertise of the entire Group. The journey of Tata Steel's organizational excellences enables it to offer insights that are applicable across industry groups. Tata Steel through this offers more than just consultancy - the vertical comprises practitioners and experienced subject matter experts who have delivered results in an organizational context allowing them to leverage their practical experience and execute proven solutions.



Bearings have played an extensive role in the amorphous Industrial Revolution, allowing the industrial machinery to operate efficiently. The term "Bearing" is taken from the verb "to bear", a bearing being mechanical equipment allows one part to bear (i.e., to support) another. The simplest bearings are bearing surfaces cut or composed into a part, with variable degrees of control over the size, form, roughness, or location of the surface. Thus, this eLearning module focuses on how bearings play a dominant role in the proper functioning of heavy machinery. This technical course takes us through real-time applications and usage of bearings in the industry.

**Course Duration**  
3 Hrs.

**Validity**  
2 Months

## Centrifugal Pumps



Centrifugal Pumps are the most prominent and commonly used pumps for the transfer of fluids. In simple words, it is a pump that uses a rotating impeller to flow water or other fluids by applying centrifugal force. These are the undisputed pump choice especially for transferring liquid from one point to another point in various industries including agriculture, petroleum, mining, municipal (water and wastewater plants), industrial, chemical, power generation plants, pharmaceutical, and many others.

**Course Duration**  
1.5 Hrs.

**Validity**  
2 Months

## Compressors



A compressor is one of the lifelines of any industry. Many industrial systems depend on compressed air to perform their basic function. The basic objective of this e-learning module on 'compressor' is to enhance knowledge of the working principles of various types of air compressors like screw compressors, centrifugal compressors, etc., function and application as well as their classification. In this e-learning module, participants will also learn how to shoot the trouble in a compressor.

**Course Duration**  
1.5 Hrs.

**Validity**  
2 Months

## Coupling



A coupling is a mechanical element that combines the drive shaft & driven shaft of a motor, pump, etc., to conduct power. Shaft couplings propose mechanical flexibility, support resistance for shaft misalignment. Hence, the flexibility of coupling can cut down irregular wear on the bearing, equipment vibration, and other mechanical troubles due to misalignment. Shaft couplings serve as a crucial link to reduce vibration and impact, grant smooth rotation for transmission. This eLearning course will help you to master the concept of coupling, its usages, and introduction to several rigid and flexible couplings used in industries.

**Course Duration**  
1.5 Hrs.

**Validity**  
2 Months

# Conveyor Belt Maintenance

Mechanical



Conveyors play a vital role in a company's transport of its raw materials or finished goods effectively. Any disruption or damage in the conveyor will result in production costs due to disruption in the supply of material. To deal with such issues, proper maintenance should be done, including monitoring of parts like the motors and reducers, having key parts in stock all the time, and the most important to train personnel properly for correct usage. This eLearning helps you to learn the key concepts of how to do proper maintenance of conveyor belts in any industry.

**Course Duration**  
1.5 Hrs.

**Validity**  
2 Months

## Industrial Valves

Mechanical



A valve is an apparatus or natural object that manages, directs, or controls the movement of a fluid (gases, fluidized solids, liquids, or slurries) by opening, closing, or partially obstructing several passageways. Valves have assorted needs, which include controlling water for irrigation, industrial uses for controlling processes, residential uses such as on/off and pressure control to dish and clothes washers and taps at home. In this eLearning course, you will learn about the types of valves, functions, parts, advantages & disadvantages of various valves, selection of valves, specification, suitability of valve, operation, and maintenance.

**Course Duration**  
1.5 Hrs.

**Validity**  
2 Months

## Industrial Water System

Mechanical



Water Treatment is crucial to improve most water-based industrial processes such as heating, processing, cleaning, cooling, and rinsing so that operating costs and correlate risks get diminished. Poor water treatment lets on the water interact with the surface of pipes and vessels which contain it. Steam boilers can scale up or erode but if left untreated, the warm, dirty water they consist of will boost bacteria to grow and Legionnaires' disease can be a disastrous reper- cussion. This eLearning module encloses all these aspects which include boiler water treatment, industrial wastewater treatment, and cooling water treatment. A detailed understanding of this process is covered in the technical eLearning module. The module takes the user through the best water treatment uses with case studies in the industry, demonstrated by TATA Steel's in-house practices.

**Course Duration**  
2 Hrs.

**Validity**  
2 Months

## Condition Diagnostic Techniques And Inspection

Mechanical



Inspection evaluates the demonstration of anticipated or foreseeable abnormalities(distress) in equipment. It is a process of using our sense organs and/or some gadgets beforehand, by which certain timely & logical actions can be taken to limit or avert the abnormalities. As we know, all machines have a natural tendency to degrade due to wear and tear, and this degradation can lead to catastrophic failure eventually; hence it is imperative to inspect for ensuring process output quality.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months



Mechanics of solids is the study of solid materials' nature and behavior, like their deformation and motion under the operation of temperature change, force applied, phase changes, and other external or internal agents. This eLearning module will help you to perceive the anatomy of solids and how solid mechanics broadly uses sensors to describe stresses, strains, and the relationship between them. This eLearning module also creates a better clarity of the center of gravity, the moment of inertia, and its several applications. The study of solid mechanics is elementary for nuclear, mechanical, biomedical, aerospace, and civil engineering students.

Course Duration  
8 Hrs.

Validity  
2 Months

## Manufacturing Technology



This eLearning course provides a brief overview of manufacturing technology. To turn raw materials into affordable & quality goods necessary for society, we need manufacturing technology. It provides us with the productive tools which facilitate the production of all manufactured goods essential to us. These machine appliances and processes make possible modern communications, affordable agricultural products, efficient transportation, innovative medical procedures, space exploration, and everyday conveniences. In short, we make modern life possible with the help of manufacturing technology.

Course Duration  
11 Hrs.

Validity  
2 Months

## Industrial Engineering

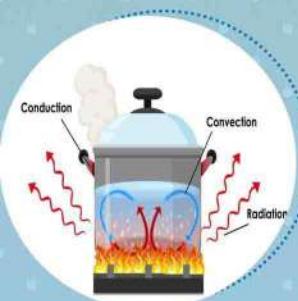


Industrial engineering involves the optimization of systems and processes by analyzing, improving, and implementing them for enhancing the productivity of an organization. The course provides an overview of the organizational structure, plant layout, importance of production planning, & controlling, and various network techniques and their relevance to organizational productivity.

Course Duration  
5 Hrs.

Validity  
2 Months

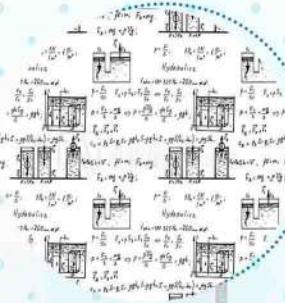
## Heat Transfer



Heat transfer is the branch of thermal engineering concerned with the generation, conversion, exchange, and application of thermal energy (heat) between physical systems. It is categorized into numerous mechanisms, like thermal conduction, thermal convection, thermal radiation, and transfer of energy during phase changes.

Course Duration  
4 Hrs.

Validity  
2 Months



Fluid mechanics is involved with the mechanics of fluids like liquids, gases, and plasmas and the forces applied to them. It can be classified into static fluid and dynamic fluid. It is a branch of continuum mechanics. Fluid mechanics, particularly fluid dynamics, is an alive field for research, typically mathematically composite.

**Course Duration**  
**10 Hrs.**

**Validity**  
**2 Months**

## Material Science



Materials science is accompanying the design and discovery of new materials, specifically solids. This module will help understand how the properties of materials are controlled by structure and bonding at the atomic level. This will help the students understand the design, selection, and processing of materials for a wide range of applications in industries.

**Course Duration**  
**5 Hrs.**

**Validity**  
**2 Months**

## Power Plant Engineering

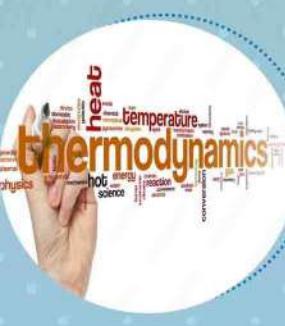


Power plant engineering is a branch of power engineering which can be classified as "the engineering and technology" vital for the production of central station electric power. This field focuses on the generation of power for industries and communities. The engineering facet of power plant management has evolved with technology and has become progressively more sophisticated.

**Course Duration**  
**6 Hrs.**

**Validity**  
**2 Months**

## Thermodynamics



Thermodynamics is a branch of physics that deals with heat and temperature, and their relation to energy, work, radiation, and properties of matter. The behaviour of these quantities is governed by the four laws of thermodynamics. It applies to a wide range of fields in engineering, especially chemical engineering and mechanical engineering, and also in fields as complex as meteorology. Thermo-dynamics is the subject of the relation of heat to forces acting between contiguous parts of bodies, and the relation of heat to electrical agency.

**Course Duration**  
**13 Hrs.**

**Validity**  
**2 Months**

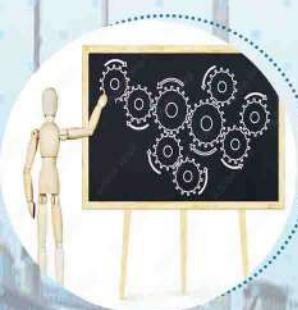


Machine design is the essential part of engineering science, to deal with the study of relative motion among the numerous parts of a machine, and forces applied to them. i.e., the theory of machines and machine design study the dynamics of the machine components. The familiarity of this subject is very vital for an engineer to design the different segments of a machine. The theory of machines can be mainly classified into 4 sub-branches: kinematics, dynamics, kinetics, statics.

**Course Duration**  
20 Hrs.

**Validity**  
2 Months

## Theory Of Machines And Mechanisms



Theory of machines & mechanisms focuses on the study of relative motion between numerous machine components and the forces that act on them. The knowledge of this subject is very essential for an engineer in designing the various parts of a machine. Through our course you will learn the fundamental principles and technology of theory of machines and mechanisms.

**Course Duration**  
6 Hrs.

**Validity**  
2 Months

## Levelling And Alignment



Levelling is the process of determining the relative heights of different points or surfaces with respect to a reference plane or point. This is typically done using a level, which is a device that uses a bubble in a liquid-filled vial to indicate when a surface is level. There are several different types of levels, including spirit levels, laser levels, and digital levels.

Alignment is the process of aligning two or more objects or surfaces with respect to a reference point or plane. This is often done using a variety of tools and techniques, such as straight edges, plumb bobs, or laser alignment systems.

**Course Duration**  
1.3 Hrs.

**Validity**  
2 Months

## Limits Fits And Tolerances



The E-learning on Limits, Fits, and Tolerances provided a better understanding of the concept of assembly of components. Limit plays a vital role in the fitting of different components as well as its accuracy of how much the components are precisely manufactured. The manufacturing of components depends on the various parameter, to keep the production rate high at the minimum cost of production the person involved in manufacturing must be aware of limits, fits, and tolerances. The accuracy of the fitting and assembly depends on the type of fit and its application. This eLearning module gives the understanding of deviation, fundamental deviations, grade of tolerances to achieve different types of fit.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months

# Industrial Hydraulics

Mechanical



Industrial hydraulics is a power transmission system having large applications in heavy machinery; and is widely used in steel plants like stacker cum reclaimers, wagon tipplers, and Mud guns. Hydraulic systems are also effectively used in end-product applications like Hot rolling and Cold rolling in a steel plant. Besides, they have a wide application in all manufacturing industries.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months

## Industrial Piping System

Mechanical



This eLearning module is all about pipes and the network of pipes. Through this Industrial Piping System course, you will learn about pipe materials and its specification, etc.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months

## Industrial Pneumatics

Mechanical



A fluid power system using air as a medium for transmitting, developing, controlling, and utilizing power is commonly called Pneumatics. For this objective, compressed air with some pressure is necessary to execute the intended work as per the applications.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months

## Lubrication Systems

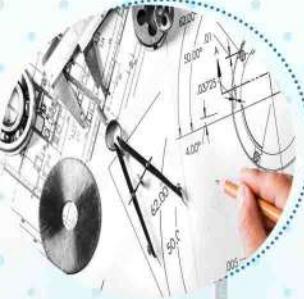
Mechanical



A Lubrication system is a technique that ideally deals with the reduction of friction among two interacting surfaces by putting lubricants between them. This technique is used to assist the smooth, continuous, and robust operation of rotating machinery parts like gears, dies, pumps, bearings, spindles, cables, chains, rails, etc.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months



An Engineering drawing is the scientific portrayal of an object, and according to several national and international standards of practice it can be understood by all, with the knowledge of basic principles of drawing. Machine drawing is the indispensable communicating medium employed in industries, to furnish all the information required for the manufacture and assembly of the components of a machine. People associated with engineering must be familiar with standards of engineering graphics as is expected in the industry. 'CAD packages' make formal drawing easy. The module here explains the concept of Engineering drawing and its various usages in an industry.

**Course Duration**  
1.5 Hrs.

**Validity**  
2 Months



## Gas Cutting

Oxy-fuel Cutting is indispensable in any industry today, it is one of the most widely used cutting processes due to low cost equipment, portability, suitable for site work and many more advantages. In this module, different aspect of gas cutting has been discussed including apparatus, regulators, hose, Cutting torch, fuels, types of flame, safety during gas cutting and gas Cutting Applications. Gas Cutting Applications are: Oxy-fuel cutting works best on metals that oxidise readily but do not have high thermal conductivity. Metals whose oxidisation temperature is below their melting point can be cut by Oxy-fuel cutting. Oxy-fuel cutting is also used for preparation of edges for welding. Oxy-fuel cutting is used for cutting low carbon and low alloy steels only. Cast iron and stainless steel cannot be cut by Oxy-fuel cutting.

**Course Duration**  
1.5 Hrs.

**Validity**  
2 Months



## Measuring Instruments

Correct measurement is an absolute must to ensure quality work. Thus, accurate and stable measuring instruments are essential tools of nearly every trade. Using a device for measuring a physical quantity for monitoring, analyzing, testing, and measuring various parameters in the physical, electrical and chemical spectra. This eLearning module aims to educate candidates about measuring instruments and formal test methods with practical applications at TATA Steel's industry-based instruments.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months



## Introduction To Electrohydraulic

Electrohydraulic covers all combinations of electrical (electronic) signal processing with hydraulic drives. Electrohydraulic stands for an electrical control device that makes precise adjustments in a hydraulic system.

**Course Duration**  
25 Mins.

**Validity**  
2 Months

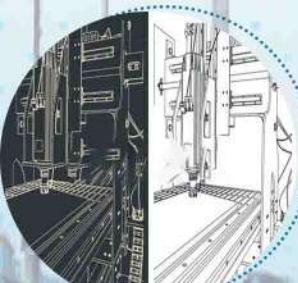


The subject of illumination engineering pertains to the principles of light control in interior lighting architecture like domestic and factory lighting as well as outdoor applications such as highway lighting and floodlighting. In this modernized era, electrically originated light is favored as the other source of illumination, due to an account of its steady light output, low cost, cleanliness, ease of control, and reliability. Besides its decorative and esthetic facet, good lighting has a rigorously functional value in lowering the fatigue of the workers, protecting their health, raising productivity, etc. The science of illumination engineering has, therefore, become important.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months

## Milling Machine



A milling machine is a machine tool that is used to remove material from a workpiece by rotating a cutting tool (such as a milling cutter) against the workpiece. Milling machines are commonly used in the manufacturing industry for machining parts to precise dimensions, as well as in the construction industry for shaping materials such as wood and metal. Milling machines are used for a wide range of applications, including shaping and cutting materials, producing precise parts, and creating complex shapes. They are an important tool in many manufacturing and construction settings, and are commonly used in conjunction with other machine tools such as lathes and grinding machines.

**Course Duration**  
50 Mins.

**Validity**  
2 Months

## Pressure Control Valves and Cartridge Valves

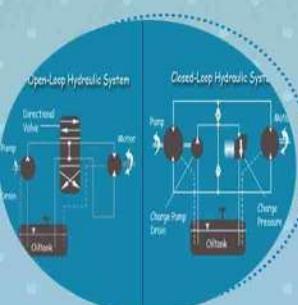


Every pressure control valve switches (or controls) at a predetermined pressure setting. The switching pressure is generally a variable setting on the valve itself. A change in position of the pressure control valve (i.e. open or closed) occurs either gradually (by control) or suddenly (by switch).

**Course Duration**  
45 Mins.

**Validity**  
2 Months

## Pump Control and Open and Closed Loop Hydraulic Circuits



Pumps are mainly used for cooling various systems or transport of liquids. Consequently, their requirements and the pump control are significantly different.

**Course Duration**  
50 Mins.

**Validity**  
2 Months

# Proportional Hydraulics

Mechanical



Proportional hydraulic valves are able to control the opening to flow proportionally instead of gradually, as is the case for most standard hydraulic valves. The simplest type of proportional hydraulic valve is a variable throttle controlled by a manual lever.

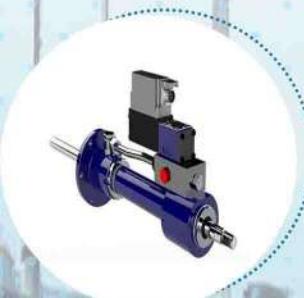
A proportional valve provides a change in output pressure or flow in the same ratio as the change in the input, for example if the input doubles then the output will also double.

Course Duration  
50 Mins.

Validity  
2 Months

## Servo Hydraulics

Mechanical



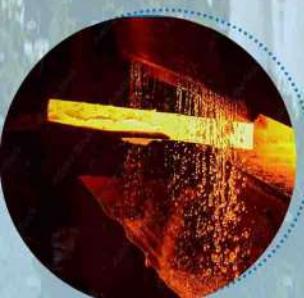
When closed-loop hydraulic control systems first began to appear in industry, the applications were generally those in which very high performance was required. While hydraulic servo systems are still heavily used in high-performance applications such as the machine-tool industry, they are beginning to gain wide acceptance in a variety of industries.

Course Duration  
35 Mins.

Validity  
2 Months

## Heat Treatment

Mechanical / Metallurgy



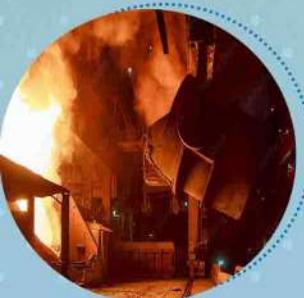
The mechanism of heating and cooling metals to transform their physical and mechanical properties without changing their shape is known as Heat Treatment. It is a mechanism for strengthening materials but could also be used to transform some mechanical properties such as improving formability, machining, etc. This eLearning module helps you to understand the different heat treatment processes that are required to change metals' physical and chemical properties. The objective of this technical eLearning course is to enable you to assess your existing knowledge through a pre-test, then lay out the objectives and demonstrate the process through real-life case studies, simulations, and process diagrams. This eLearning course is guided by easy-to-remember graphs and blueprints, making it an extraordinary learning experience for the candidate. This eLearning module takes us through the best heat treatment processes in the industry, demonstrated by TATA Steel's in-house practices.

Course Duration  
2 Hrs.

Validity  
2 Months

## Basic Metallurgy

Metallurgy



Metallurgy is a domain of materials engineering, in which you learn the physical and chemical demeanor of metallic elements and alloys. It is the science that examines why metals function the way they do and demonstrate the properties, behavior, and internal structure of metals. The metallurgy domain also characterizes the treatment and processes that allow us to tailor a metal's properties to a specific application. If you are a materials engineering aspirant or a professional, the study of basic metallurgy will help you to develop skills & knowledge which are required to design and operate processes that transform raw materials into useful engineering products intended to improve the quality of human lives. This module therefore ideal for both students and professionals who want to learn or reacquaint themselves with the nature of metals and metallurgical phenomena.

Course Duration  
1.5 Hrs.

Validity  
2 Months

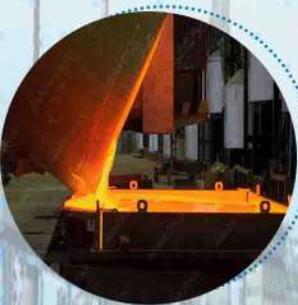


Bulk Material Handling is primarily focused on the designing of equipment used for the handling of dry materials. Bulk materials are generally dusty, granular, or lumpy and are stored in heaps or stacks. Some examples of Bulk Materials are minerals, ores, coal, wood chips, sand, gravel, cereals, clay, cement, ash, salt, chemicals, grain, sugar, flour, and stone in loose bulk form. It can also relate to the handling of amalgamate wastes. Bulk Material Handling is a vital segment of all industries that process bulk ingredients including food, beverage, confectionery, pet food, animal feed, tobacco, chemical, agriculture, polymer, plastic, rubber, ceramic, electronics, metals, minerals, paint, paper, textiles, and many more. Hence, appropriate training is crucial for operating a productive and reliable bulk solids handling system. It will help the students and professionals alike to engender greater awareness of plant operating efficiency, safety, and process improvement.

**Course Duration**  
3 Hrs.

**Validity**  
2 Months

## Desulphurization



Desulphurization of hot metal is a crucial step in the steel manufacturing process. Sulphur in steel adversely influences both mechanical and corrosion properties of the steel and causes hot shortness. A primary source of sulphur in the hot metal is the coal used in the blast furnace. As the usage of lower grade coal is being more common, more sulphur is introduced into the hot metal. Thus, there is an increased need for efficient Desulphurization of hot metal. Thus, this eLearning module explains the importance of Desulphurization in achieving the desired quality of steel.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months

## Fuel And Combustion



'Fuel and Combustion is a course offered for the students and professionals by Tata Steel Digie-Shala. Combustion is the conversion of substances called a fuel into chemical compounds known as products of combustion by combining with an oxidizer. Fuel is the fundamental element of any industry and the knowledge of the properties of fuel helps in selecting the right fuel for the right purpose and efficient use of the fuel for energy generation. This eLearning module explains the various types of fuels used in industry and explains the combination of those different fuels for combustion. The program will help the students to develop combustion methods and their applications.

**Course Duration**  
9 Hrs.

**Validity**  
2 Months

## Heat Balance



Heat balance is an account of the input and output of heat in a process which follows the first law of thermodynamics. A proper heat balance not only helps to predict the efficiency of a furnace, but also eliminates any excessive fuel wastages. Reduced fuel requirement helps reduce production costs as well as save a portion of our rapidly depleting natural resources.

**Course Duration**  
27 Mins.

**Validity**  
2 Months

## Blast Furnace Refractory

## Metallurgy



A blast furnace is a type of metallurgical furnace used for smelting iron ore to produce pig iron. Blast furnaces are lined with refractory materials, which are materials that are resistant to high temperatures and wear. The purpose of the refractory lining is to protect the blast furnace from the high temperatures and abrasive nature of the materials being processed, and to help maintain the furnace's temperature and shape.

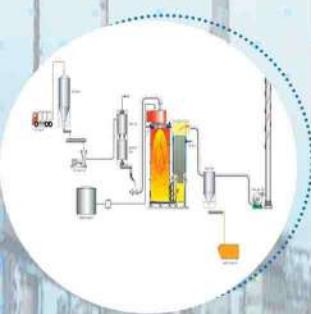
Refractory materials for blast furnaces must be able to withstand high temperatures, mechanical wear, and chemical attack, and must be able to maintain their structural integrity over long periods of time. The selection of the appropriate refractory materials for a particular blast furnace depends on a variety of factors, including the temperature and chemical environment of the furnace, the type of materials being processed, and the desired service life of the refractory lining.

## Course Duration

**Validity  
2 Months**

## Pellet Making Process And Its Quality Control

## Metallurgy



Pelletizing essentially consists of formation of green balls of 12 to 16mm size from raw material mix of iron ore fines, coal or coke fines, limestone fines, and bentonite as a binder. These green balls are then indurated to form the pellet of desired quality.

**Course Duration**  
**1 Hrs.**

Validity  
2 Months

## Hot Rolling Fundamentals

## Metallurgy



Fundamentals of Hot Rolling presents the theoretical knowledge of longitudinal rolling in a comprehensive procedure. This module discusses the basic theory and principles of rolling processes.

**Course Duration**  
50 Mins.

**Validity**  
**2 Months**

## By Product Plant Liquor Processing

Metallurgy



By-products generated during the course of carbonisation contains coal tar, moisture and toxic chemicals such as hydrogen cyanide, ammonia, naphthalene etc. These toxic chemicals need to be processed through complex chemical treatment process before re-cycling it into the system.

## Course Duration

Validity  
2 Months

# Secondary Steel Making

Metallurgy



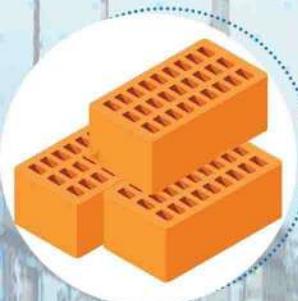
Steel Making can be divided into three parts: Primary Steel Making, Secondary steel-making, and Casting or rolling. The secondary steel-making Process is the process where final refining and finishing treatment is done after primary steel-making to achieve the required quality of Steel. With increasing quality requirements of steel, the role of secondary steel-making in steel-making is getting more important. The eLearning module on Secondary steel-making helps in learning the finer elements of this subject including an overview of the processes involved and operating principles. This module is suitable for those who are working in steel plants and their supply chain, and who want to understand the process of Steel manufacturing.

Course Duration  
1.5 Hrs.

Validity  
2 Months

## Mills Refractory

Metallurgy



A refractory mill is a machine or device that is used to grind and crush materials, typically for use in the production of refractory materials, which are materials that are resistant to high temperatures. Refractory mills are used in a variety of industries, including metallurgy, ceramics, and glass manufacturing, to grind and crush raw materials such as alumina, silica, and zirconia. Refractory mills typically operate at high temperatures and may be lined with refractory materials to protect the mill and its components from the high temperatures and abrasive nature of the material being processed. They are commonly used to grind and crush materials that are difficult to process using other types of mills, due to their high hardness or abrasiveness.

Course Duration  
1 Hrs.

Validity  
2 Months

## Fundamentals of Long Product Rolling

Metallurgy



Steel sections are generally rolled in several passes whose number is determined by the ratio of initial input material and final cross section of finished product. The cross section area is reduced in each pass and form & size of the stock gradually approach to the desired profile.

Course Duration  
1 Hrs.

Validity  
2 Months

## Coke Making - Quenching And Coke Handling

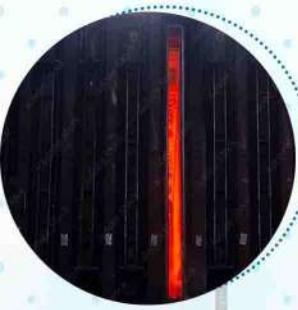
Metallurgy



Environmental responsibility towards reducing the carbon footprint has led us to evolve modern quenching technique from loss of sensible heat of coke by conventional water quenched technique to coke dry quenching method. This module will discuss various coke quenching and handling techniques.

Course Duration  
1 Hrs.

Validity  
2 Months



By -product type coke oven design is a state of art in field of Ceramics. The regenerative system of this design enhances the efficiency of the entire heating system. A stable thermal gradient is achieved by adapting to the modern development in Twin-flue system. The gigantic structure of Ceramic is held intact by its anchorage system.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months

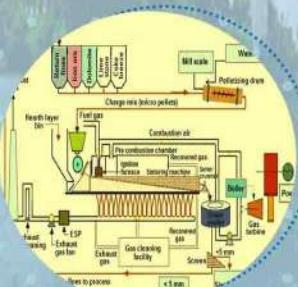


## Hot Metal Torpedo Tilting Operation And Maintenance

Hot metal produced at blast furnace is collected in a container called torpedo which transports the hot metal to steel melting shop for further processing to convert this into steel. In this course, students will learn and explore both fundamental and technical details related to hot metal torpedo tilting operations, process and method of maintenance, and their properties and applications.

**Course Duration**  
39 Mins.

**Validity**  
2 Months

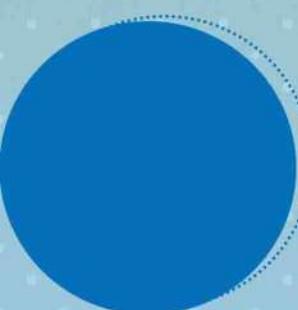


## Sinter Making Operation

Sinter making is an agglomeration process in a steel plant where iron ore fines, coal fines, and fluxes are mixed in a sinter plant to manufacture a product of suitable chemical and physical properties to feed the blast furnace. The interest in Sinter-Based agglomeration processes is rapidly growing with the promise of enabling new applications by significantly reducing production costs.

**Course Duration**  
20 Mins.

**Validity**  
2 Months



## Hot Strip Mill Quality Control and Defects

Hot strip mills are used to produce hot-rolled steel strips by rolling steel slabs, which are heated to a temperature above their recrystallization temperature. Quality control and defect detection are important aspects of the hot strip mill process, as they help to ensure that the finished product meets the required specifications and is free of defects.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months



Coke and Coke by-products are produced in the coke making which is an important step in the iron-making process. The production of by-products in a by-product plant includes the processing of coke oven gasses to remove tar, ammonia, phenol, naphthalene, light oil, and Sulphur. Clean coke oven gas is then used for heating the reheating furnaces at different locations. This course is specially designed for the training and further education of the students who are looking to build their career in the iron making & steel industry. It is also ideal for employees who are directly involved in the coke and coke by-products.

**Course Duration**  
35 Mins.

**Validity**  
2 Months

## Hot Strip Mill Equipment And Process Flow

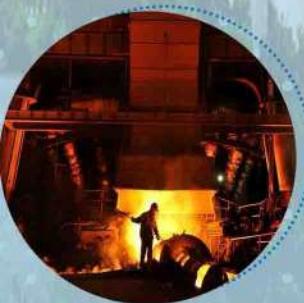


Hot rolling mills facilitate the rolling of hot slabs into hot steel strips. The unique process flow and equipment provide required mechanical and surface qualities to this strip suitable for the next manufacturing process. This eLearning course provides a comprehensive understanding of hot strip mill equipment and its process flow. It is designed to combine both practical and theoretical aspects of the equipment in hot strip mills and their process across the steel industry.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months

## Primary Steel Making

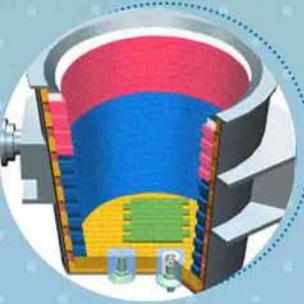


Steel-making is the practice of producing steel from iron ore and scrap. In steel-making, contaminants such as nitrogen, phosphorus, sulphur, silicon, and excess carbon are removed from the sourced iron, and alloying elements such as manganese, nickel, chromium, and vanadium are added to produce different grades of steel. Limiting dissolved gases like nitrogen and oxygen, and pollutants (termed "Inclusions") in the steel is also crucial to make sure the quality

**Course Duration**  
1 Hrs.

**Validity**  
2 Months

## Refractories And Heating



Refractory is the backbone of the Steel Industry. A complete understanding of refractory application and maintenance will enable us to appreciate its role in determining productivity and product quality in any metal industry. The eLearning course on "Refractories and Heating" will help acquire knowledge in the areas like Basics of refractory material, Types of refractories, Monolithic application, Properties and testing of refractories, and application of refractory in the steel industry. This eLearning course is equally valuable for professionals working in the steel industry and for students pursuing his/her career in the Ceramic & Metallurgical disci-

**Course Duration**  
1.5 Hrs.

**Validity**  
2 Months

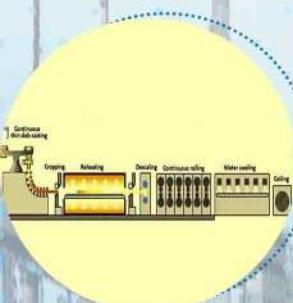


Hot rolling mills facilitate the rolling of hot slabs into hot steel strips. The unique process flow and equipment provide required mechanical and surface qualities to this strip suitable for the next manufacturing process. This eLearning course provides a comprehensive understanding of hot strip mill equipment and its process flow. It is designed to combine both practical and theoretical aspects of the equipment in hot strip mills and their process across the steel industry.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months

## Thin Slab Casting And Rolling Operation



Thin Slab Casting is a significant evolutionary step in casting methodology and allows greater efficiency and therefore cost-effectiveness to be applied to the casting process. Thin slab casting is a high-speed caster that continuously cast slab of thickness 60 to 75 mm. This thin slab is heated in a state-of-the-art tunnel furnace and is directly fed into the hot rolling mill. It is an energy-efficient process where no reheating furnace and roughing mills are required.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months

## Raw Material Bedding & Blending



Raw material bedding and blending plant is established to receive, blend, stockpile, prepare and supply specified grades of raw materials for smooth operations of iron making plants. This program discusses bulk raw materials handling along with some general problem of scientific analysis and documentation of basic equipment details, stockyard facilities, bulk materials transport systems and sinter processes.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months

## Fundamentals Of Metallurgy



Metallurgy attribute to the science and technology of metals, the production of metals, and the engineering of metal components used in goods created for both manufacturers and consumers. It is the study of the physical and chemical nature of metallic elements, their inter-metallic amalgams, and their alloys.

This eLearning course provides an overview of the basics of metallurgy. This course gives you depth knowledge of the metalworking processes, parameters, properties, and identification methods of metal alloys. The module is intended for students and professionals of material, mechanical, civil, and chemical engineers who are interested in exploring the fundamentals of metallurgy and metalworking principles.

**Course Duration**  
5 Hrs.

**Validity**  
2 Months

# Iron Making

Technical Curriculum

Metallurgy



Iron ore as mined is a combination of iron with oxygen and numerous other unwanted substances, generally known as "gangue". The process of reducing iron ore to metallic iron is known as Iron Making. This process is carried out in a blast furnace, using coke as both a fuel and reducing agent.

The Iron-making e-learning module from Tata Steel Digie-Shala brings forth an in-depth overview of the blast furnace process and raw materials considerations. This module is a combination of theoretical and operational aspects. The course is aimed at people who are either looking to build their career in the steel industry or working in it, as well as the iron & steel supply chain. Students will benefit from a broad understanding of the iron-making process.

Course Duration  
8 Hrs.

Validity  
2 Months

## Physical Metallurgy

Technical Curriculum

Metallurgy



Physical metallurgy is the branch of metallurgy related to the theory of phase transformations in metal and alloys. It deals mainly with mechanical and magnetic/electric/thermal properties of metals – treated by the discipline of solid-state physics. This eLearning course on physical metallurgy from Tata Steel Digie-Shala will help you to develop the understanding of basic principles of physical metallurgy like heat treatment, phase transformation, phase diagrams, precipitation hardening, and aging.

Course Duration  
6 Hrs.

Validity  
2 Months

## Powder Metallurgy

Technical Curriculum

Metallurgy



Powder metallurgy is a concept that envelope an ample range of possibilities in which materials or components can be built from metal powders. It is also used to design unique materials which are impossible to get from melting or forming in other ways. Powder metallurgy processes can avoid, or reduce, the dependency to use metal removal processes, thereby drastically reducing yield losses in manufacture and often resulting in lower costs. This eLearning course from Tata Steel Digie-Shala provides a broad introduction to the fundamental principles of powder metallurgy as well as the relevant concepts in detail. The objective of this course is to help students learn about the process and understand its applications in the industry.

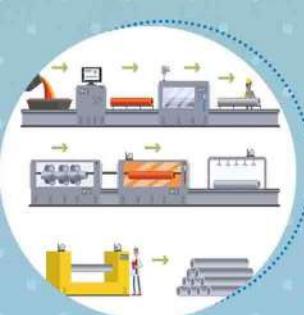
Course Duration  
4 Hrs.

Validity  
2 Months

## Steel Making

Technical Curriculum

Metallurgy



The Study of process and methods of extraction of valuable metals from their natural mineral deposits and refining the extracted raw metals into a purer form are known as Extractive metallurgy. It is a branch of metallurgical engineering. It covers all aspects of the verity of ore, washing, concentration, separation, chemical processes and extraction of pure metal and their alloying to suit various applications, for direct use as a end product.

Course Duration  
5.5 Hrs.

Validity  
2 Months



Fuels, Furnaces, and Refractories are the analysis of the sources and productive use of the energy available to modern industry. This eLearning course introduces furnaces and refractories and explains the various design and operation aspects. It also includes the classification, properties, tests, and different kinds of fuels, as well as trends in fuel utilization.

This e-learning course will provide students a deep insight into the utilization of fuels, with some fundamentals essential to have a grasp of the subject.

**Course Duration**  
**5 Hrs.**

**Validity**  
**2 Months**

## Material Testing



Materials testing is used to define both the mechanical and physical properties of raw materials and components. It is mainly used to examine almost everything, such as steel, ceramics or composite materials, etc. Materials testing can be split into five sections: mechanical testing; testing for thermal properties; testing for electrical properties; testing for resistance to corrosion, radiation, and biological deterioration; and non-destructive testing.

The eLearning course on materials testing enables students to understand the technical characteristics of engineering materials.

**Course Duration**  
**4 Hrs.**

**Validity**  
**2 Months**

## Mechanical Metallurgy



Mechanical metallurgy deals with different behavior and response of metals based on applied forces. These forces may arise from the use of the metals as a member or part of a structure or machine. Hence it is essential to know about limiting values that can be withstood without failure.

The aim of this e-learning module from Tata Steel Digie-Shala is to illustrate the mechanical behavior of metallic materials, under different conditions. By the end of this course, students will have the knowledge and ability to select the material and the processing conditions more suitable for the design and construction of reliable mechanical components.

**Course Duration**  
**6 Hrs.**

**Validity**  
**2 Months**

## Extractive Metallurgy (Non-Ferrous)



Extractive metallurgy -a branch of metallurgical engineering is about the study of processes and methods of extraction of valuable metals from their natural mineral deposits and refining the extracted raw metals into a purer form. It covers all aspects of the life cycle of ores such as washing, concentration, separation, chemical processes, and extraction of pure metal and their alloying to suit various applications, for direct use as an end product. This eLearning course focuses on the theoretical and practical aspects of the extraction of nonferrous metals. This course will help students to learn about the discovery of metals and their importance, uses of nonferrous metals, exploration methods, methods of beneficiation, principles of metals extraction, general methods of extraction, etc.

**Course Duration**  
**6 Hrs.**

**Validity**  
**2 Months**



This online course deals with an introduction to the most powerful engineering principles you will ever learn - Thermodynamics: the science of transferring energy from one place or form to another place or form. Thermodynamics is a branch of physics that deals with heat and temperature, and their relation to energy, work, radiation, and properties of matter. The behaviour of these quantities is governed by the four laws of thermodynamics. It applies to a wide range of fields in engineering, such as chemical and mechanical engineering. By end of this module, students will be able to understand the basic thermodynamic principles widely used in different engineering fields and the tools which are required to analyze energy systems from solar panels, to engines, to insulated coffee mugs, etc.

**Course Duration**  
4 Hrs.

**Validity**  
2 Months

## Power System Generation

Electrical and Electronics



This module will provide a brief overview of the Generation, Transmission, and Distribution of power. By the end of this course, the participants will be able to define electrical power generation, illustrate how our home gets electric power, list various sources of energy for power plants, explain the construction and working principles of Alternators and Generator Transformers in a power plant and compare various energy sources. The module will also discuss the transmission line equipment and the various effects observed in the Transmission line. It further discusses the electrical power distribution system, lists the types of the distribution system, and understands the distribution Transformer.

**Course Duration**  
4 Hrs.

**Validity**  
2 Months

## Power System Protection

Electrical and Electronics



This course will familiarize participants with the different concepts related to Power Systems Protection. This course is divided into three parts. Part-I deals with the basics of power systems protection, which include the nature of faults, qualities and basic principles of protection, and the components of protection. Part -II deals with the function, operation, and classification of Relays. Finally, Part -III deals with the setting of the protection relay. By the end of this course, participants will be able to: Explain the significance of power system protection Define the nature of faults Explain a few abnormal conditions arising from different types of faults Explain the essential qualities of protection Explain the operation of Protective relay Classify and discuss each type of relay Electromagnetic Relay Static Relay Numerical Relay.

**Course Duration**  
6 Hrs.

**Validity**  
2 Months

## Power Systems Power Cables

Electrical and Electronics



Learning of Power Cable in depth will enable you to define an electrical power cable, explain its construction, describe the guidelines for cable laying and installation, explain the jointing of cables, and list the design factors of a power cable. This module will also help you to explain stress control, identify the methods of stress control, describe the method of tracking, explain the method of weathering and define the process of cable maintenance.

**Course Duration**  
2 Hrs.

**Validity**  
2 Months



Earthing is used to defend us from an electric shock. It does this by providing a protective conductor for a default current to flow to the earth. It also contains a circuit breaker or fuse to switch off the electric current to the circuit that has the fault. This course will help you to define the earthing system, define the significance and purpose of earthing in power systems and define terminologies related to earthing. It will also enable you to identify what needs to be earthed and explain the specifications of the earth continuity conductor.

**Course Duration**  
2 Hrs.

**Validity**  
2 Months

## Power Transmission And Distribution

Electrical and Electronics



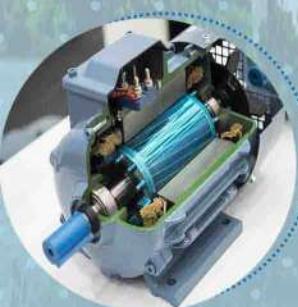
This module will provide a brief overview of the Transmission and Distribution of power. The module will also discuss the transmission line equipment and the various effects observed in the Transmission line. It further discusses the electrical power distribution system, lists the types of the distribution system, and understands the distribution Transformer.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months

## Induction Motors

Electrical and Electronics



The module focuses on the basic concept of Induction Motors. An Induction Motor is the most modest electrical machine from a constructional point of view. An induction motor is referred to as the horsepower of the industry. An induction machine is by far the most common type of motor used in industrial, commercial, or residential settings because it has: Simple and rugged construction Low cost and minimum maintenance High dependability, and sufficiently high proficiency Needs no additional starting motor and necessity not be synchronized.

**Course Duration**  
3 Hrs.

**Validity**  
2 Months

## Fan And Blower

Electrical and Electronics



In any manufacturing industry, the aspect of a fan and blower is very crucial. This machinery plays an important role in conveying the dust, fluids, etc. through pipes. Hence, knowledge of the basic functions, types, working principles as well as operation and maintenance of the same becomes important. Through this eLearning module, you will enhance your knowledge of the construction and selection of fans and blowers based on the types of fluid to be handled.

**Course Duration**  
2 Hrs.

**Validity**  
2 Months



The e-learning course module on Indian Electricity (IE) rules is divided into four parts. By the end of this course the participant will be able to enhance their knowledge in the following areas: Understand the genesis and relevance of IE Rules Basic terms related to IE rules and safety regulations Know about general conditions relating to supply and use of electricity List of safety provisions for electrical installations and apparatus of voltage not exceeding 650 volts Learn Safety requirements for overhead lines, underground cables and generating stations.

**Course Duration**  
1.5 Hrs.

**Validity**  
2 Months

## Process Instrumentation



Instrumentation is the science of automated measurement and control. Applications of this science abound in modern research, industry, and everyday living. From automobile engine control systems to home thermostats to aircraft autopilots to the manufacture of pharmaceutical drugs, automation is everywhere around us.

**Course Duration**  
2 Hrs.

**Validity**  
2 Months

## Synchronous Machines

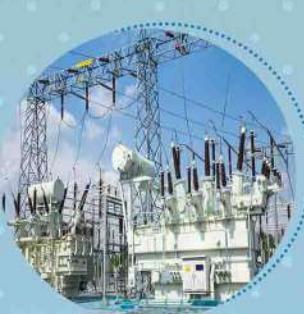


A synchronous machine is an AC machine; its rotor rotates with the same speed of rotating field (synchronous speed). Synchronous machines are predominantly used in power generation. They are called synchronous generators (or alternators).

**Course Duration**  
2 Hrs.

**Validity**  
2 Months

## Transformers



Transformers are electrical devices consisting of two or more coils of wire used to transfer electrical energy using changing magnetic field. The transformer does this by linking together two or more electrical circuits by using a common oscillating magnetic circuit which is produced by the transformer itself. A transformer operates on the principles of "Electromagnetic Induction", in the form of mutual induction. Therefore, the focus of the module is on transformers and their industrial usages.

**Course Duration**  
2 Hrs.

**Validity**  
2 Months

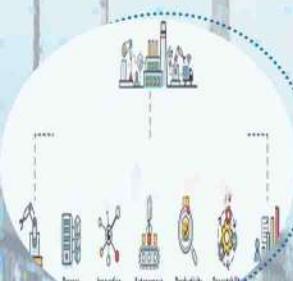


PLC being the backbone of all the big industries today, the module thus focuses on industrial use of PLC. A Programmable Logic Controller (PLC) or Programmable Controller is an industrial digital computer that has been ruggedized and adapted for the control of manufacturing processes, such as assembly lines or robotic devices, or any activity that requires high-reliability control and ease of programming and process fault diagnosis. The main difference from most other computing devices is that PLCs are intended for and therefore tolerant of more severe conditions (such as dust, moisture, heat, and cold) while offering extensive input/output (I/O) to connect the PLC to sensors and actuators.

**Course Duration**  
2 Hrs.

**Validity**  
2 Months

## Basics of Distributed Control Systems



A distributed control system (DCS) is a type of automated control system that uses decentralized control elements to manage and control a process. It consists of a central control unit, or "host," and a number of distributed control modules, or "nodes," which are connected by a communication network.

One of the main benefits of a DCS is that it allows for the decentralized control of a process, which can make it more flexible and responsive. This is because the control elements are distributed throughout the system, rather than being centralized in a single location. This allows for more localized control of the process and makes it easier to add or remove control elements as needed.

**Course Duration**  
45 Mins.

**Validity**  
2 Months

## Electrical Maintenance and Practices



Electrical maintenance is the process of inspecting, testing, and repairing electrical systems and equipment in order to ensure that they are operating safely and efficiently. Electrical maintenance practices are critical for preventing accidents, downtime, and equipment failure, and for ensuring that electrical systems meet all relevant safety and performance standards.

**Course Duration**  
3 Hrs.

**Validity**  
2 Months

## High Voltage Engineering



High-voltage engineering is the science of planning, operating, and testing high-voltage electrical devices and designing the insulation coordination in order to ensure the reliable operation of the power network.

**Course Duration**  
1.3 Hrs.

**Validity**  
2 Months



Sensors and transducers are devices that are used to measure or detect physical or chemical quantities, such as temperature, pressure, flow, or level, and convert them into an electrical signal that can be read and processed by a control system or other device.

Sensors are devices that are used to detect or measure a physical or chemical quantity. They may be passive, meaning that they do not require a power source to operate, or active, meaning that they require a power source in order to function. Sensors can be used to detect a wide range of quantities, including temperature, pressure, humidity, motion, and chemical concentration.

Transducers are devices that are used to convert a physical or chemical quantity into an electrical signal that can be read and processed by a control system or other device. There are many different types of transducers, including resistive, capacitive, inductive, and piezoelectric trans-

**Course Duration**  
1.3 Hrs.

**Validity**  
2 Months

## A C Machines

Technical Curriculum Electrical and Electronics



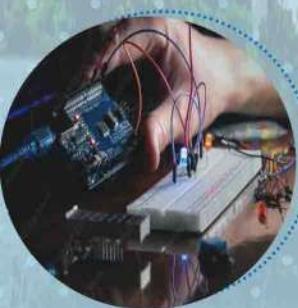
AC machines are motors used to convert mechanical energy to Alternating Current electricity because power transferred into the field circuit is much less than power transferred into the armature circuit, AC Machines nearly always have the field winding on the rotor and the armature winding on the stator. The two major classes of ac machines are synchronous and induction machines.

**Course Duration**  
4 Hrs.

**Validity**  
2 Months

## Basic Electronics

Technical Curriculum Electrical and Electronics



Basic electronics constitute the “electronic instruments” which become a part of everyday electronic machineries. These electronic machineries include capacitors, diodes, transistors, resistors, inductors and transformers. Powered through a battery, they are build to work under certain laws and principles of physics.

**Course Duration**  
7 Hrs.

**Validity**  
2 Months

## Digital Electronics

Technical Curriculum Electrical and Electronics



Digital electronics are electronics that operate on digital signals. The techniques used in Digital electronics are helpful because it is very easier to get an electronic device to convert into one of a number of known states than to accurately reproduce a continuous range of values.

**Course Duration**  
5 Hrs.

**Validity**  
2 Months



A DC machine is an electromechanical energy alteration device. The working principle of a DC machine is when electric current flows through a coil within a magnetic field, and then the magnetic force generates a torque which rotates the dc motor whereas a transformer is an electrical equipment used to transfer electrical energy from one electrical circuit to another, or multiple circuits without changing the frequency. Transformers can also be used for isolation, where the voltage in equals the voltage out, with separate coils not electrically bonded to one another.

**Course Duration**  
5 Hrs.

**Validity**  
2 Months

## Electrical Power Generation

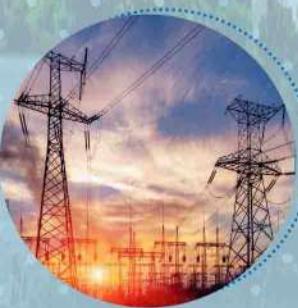


Electrical Power Generation is the process of generation of electric power from primary sources of energy. Electricity is usually generated at a power plant by electromechanical generators, which are driven by heat engines fueled by combustion or nuclear fission, but also by other means such as the kinetic energy of flowing water and wind.

**Course Duration**  
7 Hrs.

**Validity**  
2 Months

## Electrical Power Transmission & Distribution



Transmission & distribution of electric power refers to the various stages of carrying electricity over poles and wires from generators to a home or a business. The difference between the Transmission & distribution is the voltage level at which electricity moves in each stage. Transmission and distribution are two separate stages or systems on the grid.

**Course Duration**  
5 Hrs.

**Validity**  
2 Months

## Fundamentals Of Electrical Engineering



Fundamentals of Electrical Engineering deals with the study, design, and application of equipment, devices, and systems that use electricity, electronics, and electromagnetism. Electrical Engineering concentrates on the representation, manipulation, transmission, and reception of information by electrical means. Electrical engineers work in a very wide range of industries and the skills required are likewise variable. These range from circuit theory to the management skills of a project manager.

**Course Duration**  
8 Hrs.

**Validity**  
2 Months



The application of solid-state electronics used to control and convert the electric power is known as Power Electronics and Drives. In modern systems, the conversion is performed with semiconductor switching devices.

**Course Duration**  
6 Hrs.

**Validity**  
2 Months

## Instrumentation



Instrumentation engineering is the study of the measurement and control of process variables within a production or manufacturing area.

**Course Duration**  
6 Hrs.

**Validity**  
2 Months

## Switchgear And Protection



Every electrical circuit along with a high voltage electrical power system requires switching and protective devices. But in high voltage and extra-high voltage systems, such switching and protective scheme becomes difficult for high fault current interruption safely and securely. In addition to that from a commercial scenario, every electrical power system needs measuring, controlling, and regulating arrangement, which is collectively known as switchgear & protection of power system.

**Course Duration**  
7 Hrs.

**Validity**  
2 Months

## Microprocessors And Microcontrollers



Microprocessors are used in personal computers or other general-purpose applications consisting of various discrete chips, whereas in contrast the Microcontrollers are designed for embedded applications.

**Course Duration**  
5 Hrs.

**Validity**  
2 Months



First aid is the first and immediate assistance given to any person suffering from either a minor or serious illness or injury. As per mines rule Every underground mine shall be adequate and suitable arrangements are made for the speedy removal from the mine to a dispensary or hospital, of persons employed in the mine who while on duty suffers from serious bodily injury or illness of a serious nature. At every mine employing more than 150 persons on any one day of the preceding calendar year, there shall be provided and maintained in good order a suitable first-aid room & A first aid station shall be established at the bottom of every shaft where men or material are normally wound, near the drive end of every haulage and at the entrance to every district or section of the mine.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months

## Opencast Blasting



Opencast blasting, also known as surface blasting or strip blasting, is the process of using explosives to break up rock or soil in an opencast mining operation. This is typically done to extract minerals that are found near the surface of the ground, such as coal, limestone, and other types of ore.

**Course Duration**  
1.5 Hrs.

**Validity**  
2 Months

## Opencast Drilling



Opencast drilling refers to the process of drilling holes into the ground in an opencast mining operation. This type of drilling is typically used to locate and extract minerals, such as coal, that are found near the surface of the earth.

There are several different types of drilling methods that can be used in opencast mining, including rotary drilling, top hammer drilling, and down-the-hole (DTH) drilling. The choice of drilling method will depend on a variety of factors, including the type of mineral being extracted, the geology of the area, and the equipment and resources available.

**Course Duration**  
5 Hrs.

**Validity**  
2 Months

## Opencast Mine Maintenance



Mine maintenance is a general term used to cover all the operation and maintenance activities for the day-to-day smooth operation of a mine, facilitate ease of operation in shift workings, and preparatory work for the overall advancement of mine. It predominantly includes maintenance of haul roads/ramps, management of dumps/stockpiles, face dressing, maintenance of berms, preparation, and maintenance of drainage system.

**Course Duration**  
1.3 Hrs.

**Validity**  
2 Months



Coal processing refers to the series of processes that are involved in the extraction of valuable minerals and other materials from coal. This can include a variety of activities, such as crushing, grinding, and washing, as well as the separation of useful minerals from waste materials using techniques like flotation and leaching. The end goal of these processes is to produce a concentrate that can be further refined or processed.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months



## Mining Gas Testing

In underground coal mines are much more dangerous, as it incorporates the risky fumes and the hazardous gases that may be present in an influential quantity that can have physiological effects on the human body and can even be lethal. Timely Detection of these hazardous gases is a major challenge and needs to be followed for the safety of the miners present in the mine. As per CMR-2017, No person shall be appointed as a competent person unless he holds a Gas

**Course Duration**  
1 Hrs.

**Validity**  
2 Months



## Opencast Mine Planning Geology

Geology describes the structure of the Earth on and beneath its surface and the processes that have shaped that structure. Geologists use a wide variety of methods to understand the Earth's structure and evolution, including fieldwork, rock description, geophysical techniques, chemical analysis, physical experiments, and numerical modeling. In practical terms, geology is important for mineral and hydrocarbon exploration and exploitation. In the mining industry, it plays an important role in preparing pit design, conducting exploration to know the quality & quality of different grades of ore present in orebody, preparation of long term, medium term & short term excavation plans to ensure the quality of the product as per customer requirement.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months



## Opencast Mine Planning Survey

Mine surveying is a branch of mining science and technology. It includes all measurements, calculations, and mapping which serve the purpose of ascertaining and documenting information at all stages from prospecting to exploitation and utilizing mineral deposits both by surface and underground working. By use of survey, we come to know about the status of compliance of statutory plans & section. We also measure the quantity of excavation done during a particular period and the quantity of material available in stocks & dumps.

**Course Duration**  
1.25 Hrs.

**Validity**  
2 Months



Haulage arrangement is that which operates between the working faces and the main loading points. A hoist or winder is used to raise and lower the man & materials. The transport system must be designed, considering the many other elements of the mining operation, and we must take into account the number of possible steps from the extraction site (face) to the shaft or ramp portal. As a combination of various types of equipment - such that it is most applicable to the coal seam being mined, the mining methods employed, and the mine plan. As prescribed in CMR2017 Haulage roadway shall be of adequate dimensions and, as far as practicable, shall be straight and of regular gradient and have tracks properly laid with rails of adequate section. Pulleys, sheaves, and rollers that alter the direction of a rope shall be securely fixed.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months



## Opencast Mine Safety

Safety is a critical concern in opencast mining, as the work involves many hazards, including the risk of falls, collisions with heavy machinery, and exposure to hazardous substances. To ensure the safety of workers in opencast mines, employers are responsible for implementing a number of measures, such as providing protective equipment and training, conducting regular safety inspections, and establishing emergency procedures. Workers also have a responsibility to follow safety procedures and to report any safety concerns they may have.

**Course Duration**  
1.5 Hrs.

**Validity**  
2 Months



## Ore Processing & Despatch

Ore processing refers to the series of processes that are involved in the extraction of valuable minerals or other geological materials from ore. This can include a variety of activities, such as crushing, grinding, flotation, and leaching. The end goal of these processes is to extract the valuable minerals or materials from the ore and produce a concentrate that can be further refined or processed.

Despatch, on the other hand, refers to the act of sending or transporting goods or materials from one location to another. In the context of ore processing, despatch might involve the transportation of the processed ore or ore concentrate to a refining facility or to a storage location for further processing or sale.

**Course Duration**  
1.5 Hrs.

**Validity**  
2 Months



## Underground Coal Loading And Evacuation

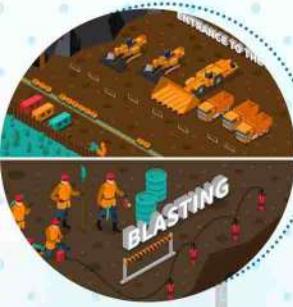
There are several methods for moving prepared coal from the mine face to the surface. In the early days of mining, the manual loading and transportation of coal can be done with Loading of coal into tubs. Now, we use SDL/LHD loading of coal & Belt conveyors for carrying coal over long distances. Side discharge loader (SDL) is one such machine that is designed to work in underground mines. They typically scoop coal from face and load runs into transportation types of equipment such as coal tubs, chains, or belt conveyors.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months

# Underground Blasting

Mining



Blasting is the process of breaking of bulk rock masses into loose forms, using explosive compounds. Here, the primary role is played by the explosives. The explosives are the substances or devices used in blasting. The explosives are used to produce a volume of rapidly expanding gas that exerts sudden pressure on its surroundings and break the mass into pieces. But when it comes to underground coal mining, all coal seams are considered gassy and the degree of the gas present may vary from I to III. Then only permitted explosive & approved detonators are to be used.

Concepts of solid off Blasting;-Freedom to Move : In situ Coal needs free passage to move out during blasting, i.e. Free face to be created by Creating wedge opening by drilling and blasting a few additional holes preferably Solid Blasting.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months

## Underground Coal Mining Process And Working Method

Mining



Underground mining involves opening one or more portals or shafts into the earth that follow or intercept coal seams that are too deep for surface mining methods. Method of Work is Bord & Pillar method & longwall method for extraction of coal.

There are two stages of board & pillar mining i.e Development & Depillaring

Development: It is a method of making drivage of the gallery by drilling and blasting for establishing & extending ventilation, traveling roadway, haulage roadway for material flow, making sump area, panel making (sectionalisation), etc.

**Course Duration**  
1.3 Hrs.

**Validity**  
2 Months

## Underground Dressing

Mining



Coal by nature creates sedimentary rock with shale and sandstone. These sedimentary rocks in roofs create cleats and cracks naturally or due to mining. With time, moisture, and air contact or after blasting these cracks and cleats loosen which creates safety risk as these loose parts can come down and injury someone. So, in underground coal mines, Dressing activity is done by skilled and experienced human dressers carefully. All technical inputs related to the Dressing operation have been covered in the module.

**Course Duration**  
1.3 Hrs.

**Validity**  
2 Months

## Underground Face Machinery

Mining



Underground Face Machinery E-learning is a practical guide for anyone who works in the face of underground mine. It provides a comprehensive summary of all aspects of face engineering, including planning and design, construction and operational procedures.

**Course Duration**  
1.5 Hrs.

**Validity**  
2 Months

## Underground Drilling

Mining



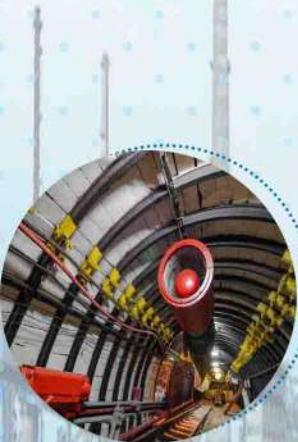
Drilling is a cutting process that uses a drill bit to cut a hole of circular cross-section in solid materials. Mining drilling is used for two main purposes:

- Exploration drilling which aims to identify the location and quality of a mineral
- Production drilling, used in the production cycle for mining

Underground mining (hard /soft rock) uses a variety of drill rigs dependent on the desired purpose, such as production, bolting, cabling, and tunneling. The drilling operation In connection with methane exploration or extraction activities in a belowground mine or part thereof, the conditions and other details for the conduct of drilling operation shall be specified by the Chief Inspector, by a special order. Different types of drilling machines are used in underground coal mines like; Electric coal drill machines, pneumatic drill machines, jackhammer drill machines, & Universal drill machines.

**Course Duration**  
1.3 Hrs.

**Validity**  
2 Months



## Underground Face Ventilation

Mining

The purpose of face ventilation is? to clear away smoke, steam, and dust, to dilute gases that are inflammable or noxious to render them harmless, to provide air containing sufficient oxygen, and to prevent the excessive rise of temperature or humidity which may be harmful to the health of persons working in the face. The face ventilation i.e ventilation of headings, ventilation of ventilation districts, mine including old workings, etc. This applies to all parts of belowground mines. The major difference between main ventilation and face ventilation is the number and nature of the ventilation control devices (fans, stoppings, doors, regulators, and air-crossings). The Air circulation is achieved by creating a pressure difference between the mine workings and the surface through the use of fans.

**Course Duration**  
1.5 Hrs.

**Validity**  
2 Months



## Underground Inspection And Examination

Mining

To protect personnel by preventing or controlling access to hazards in work areas by the installation and maintenance of barricades, demarcation, and restricting access.

This module will provide you guidance for the erection of permanent and temporary barricading and demarcation to prevent people from being unnecessarily exposed to a hazard by raising awareness of the presence of a hazard or restricting access to an area of the workplace. The objective is to ensure that health and safety signs and barricades are placed in an appropriate and consistent manner and to clearly define the demarcation of access ways, storage areas, and work areas.

**Course Duration**  
2 Hrs.

**Validity**  
2 Months



## Underground Mine Planning (Surveying)

Mining

Surveying is the art of determining the relative positions of various points on, above, or below the surface of the earth using direct or indirect measurements of distance, direction, and elevation. As per CMR-2017, every mine plan should have the name of the mine and the name of the owner and the purpose, a clear indication of true north, or the magnetic meridian and date. The scale of the plan shall be at least 25 centimeters long and suitably subdivided & representative factor of 2000:1 or 1000:1. Properly inked in on durable paper, tracing cloth, or polyester film and be kept in good condition. All the reference stations at the surface and the reference points of underground surveys shall be shown in their correct position relative to the survey of India national grid within the limits of error of survey and plotting.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months



In underground mining, a common term is mine face where the mining work is being advanced. Face machinery plays an important role in coal production. The most common face machinery used in underground mines is a side discharge loader (SDL), Load haul dump machine (LHD), Road Header, Continuous Miner, Twin bolter, or Quad bolter, Feeder breaker, Shuttle car & Extensible belt conveyor, Chain conveyor, etc. Locomotives, which are used as utility vans in the mining district. All face machinery shall be under the charge of a competent person. As per CMR 2017 "competent person" concerning any work or any machinery, plant or equipment means a person who has attained the age of twenty years and who has been duly appointed in writing by the manager as a person competent to supervise or perform that work, or to supervise the operation of that machinery, plant or equipment, and who is responsible for the duties assigned to him, and includes a shot fired.

**Course Duration****1 Hrs.****Validity****2 Months**

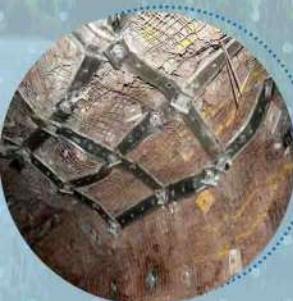
## Underground Stowing



Stowing is a method in which the goal is completely packed with incombustible material like sand or fly ash etc. and is generally practiced where it is necessary to keep the surface and strata above the seam intact. Sand-stowing was practiced for the first time in the United States of America in the year 1892 with the object of protecting buildings on the surface and also the surface itself. In India the introduction of this process is comparatively new; it was first tried at Ballarpur in Madhya Pradesh in 1914 and subsequently introduced in the Jharia coalfield in 1919. Stowing as a measure against the protective measure -To protect surface structures (township, industrial plant, railways, roads, etc) that can't be shifted. It also protects against dangers arising due to subsidence, prevents fires, premature collapses, explosions, and flooding in coal mines.

**Course Duration****1.5 Hrs.****Validity****2 Months**

## Underground Supporting



Mines support is essential to the safety of every underground deployed people support to interact with the ground to create a stable rock structure. So that, the owner, agent, and manager of every mine shall prepare, formulate and implement a Strata Control and Monitoring Plan (SCAMP). It includes System and organization for procurement & supply, method of handling including assembling, dismantling & transport of support materials. The system & organization for maintenance & checking of supports dressing of roof & sides, erecting, examining, and re-tightening of supports & re-erecting dislodged supports. The manner setting & withdrawal of supports including the setting of extra supports to control the collapse of the roof from which supports are being withdrawn.

**Course Duration****1 Hrs.****Validity****2 Months**

## MS Office



MS Office is one of the most important tools used in any corporate today to maintain and present documents and data. The Office Automation Package contains learning videos that deal with the basic understanding of MS Office. In MS Word, the training provided is on basic editing of documents, bullets, and numbering, inserting, and editing of tables. MS Excel provides you an overview of Excel, basic excel formulas, sorting and filtering of data. In PowerPoint, the training gives an overview of PowerPoint, how to add slides, edit master slides, and basic animation.

**Course Duration****1 Hrs.****Validity****2 Months**



Microsoft Excel is one of the most valuable tools to perform the calculation, analysis, and visualization of data. Advanced Excel is a comprehensive tutorial that provides a good insight into the latest and advanced features available in MS Excel 2013. This tutorial has been designed for all those readers who depend heavily on MS-Excel to prepare charts, tables, and professional reports that involve handling and analysis of complex data.

**Course Duration**  
4 Hrs.

**Validity**  
2 Months

## Basic Statistics For Data Science

Statistics forms the base for Data Science. It provides the means and tools to find structure in our data and allows us to find a better understanding of the truths revealed by our data. It is one of the most fundamental steps to derive meaningful insights from data by performing mathematical computations on it. Trying to learn Data Science without a foundation in Statistics is like "driving a Ferrari without a break".

**Course Duration**  
1 Hrs.

**Validity**  
2 Months

## Advanced Statistics For Data Science

Deep dive into Statistics and learn all the basic and advanced topics essential in Statistics for Data Science. This in-depth course starts from a complete beginner perspective and introduces you to the various facets of statistics and concepts required to solve business problems and help you make better business decisions from data.

**Course Duration**  
1 Hrs.

**Validity**  
2 Months

## Machine Learning Fundamentals

Machine Learning is the core of analytics in today's world and is turning out to be a game-changer in various industries including manufacturing. This module aims at providing a conceptual understanding of various basic aspects including some key modules of Machine Learning without going into the technicalities of implementing Machine Learning through programming languages like Python.

**Course Duration**  
4 Hrs.

**Validity**  
2 Months





Blockchain is a decentralized, distributed digital ledger that is used to record transactions across a network of computers. It allows for secure, transparent, and tamper-evident record-keeping without the need for a central authority or intermediary.

Blockchain technology is based on a distributed database that is made up of a series of blocks, each of which contains a list of transactions. These blocks are linked together in a chronological chain, with each block containing a cryptographic hash of the previous block. This makes it very difficult to alter or delete any of the transactions recorded in the blockchain, as doing so would require changing not just the transaction in question, but also all of the subsequent blocks in the chain.

**Course Duration****1 Hrs.****Validity****2 Months**

## Tableau Fundamentals



In today's data-driven world, Tableau is one of the most commonly used data visualization tools. Tableau certification training will allow you to master building interactive dashboards and performing data visualization. In this Tableau course, you will learn about Desktop and Public integration with R and Astronomically immense Data in this Tableau Desktop certification. The course is best for systems and IT administrators, software developers, and business intelligence experts.

**Course Duration****1 Hrs.****Validity****2 Months**

## Barricading Safety Standard



It is crucial for all businesses to have a barricading safety standard in place in order to protect employees, customers, and the general public in the event of an emergency. A barricading safety standard includes the following requirements: a barricading plan, a designated safe area, a designated barricading system, a designated emergency contact, and a designated evacuation route. By having these requirements in place, businesses can ensure the safety of all individuals in the event of an emergency.

**Course Duration****Basic: 20 Mins.****Advance: 40 Mins****Validity****2 Months**

## Belt Conveyor System Safety Standard



To ensure the safety of workers who use belt conveyor systems, there are a number of safety standards that must be followed. These standards may vary depending on the location and the specific type of conveyor system being used, but common safety measures include:

- Providing guards or barriers to prevent workers from coming into contact with moving parts of the conveyor system
- Ensuring that all electrical components and wiring are properly maintained and in good condition
- Providing training and instruction to workers on how to safely operate and maintain the conveyor system
- Conducting regular inspections and maintenance to identify and fix any potential safety hazards
- Establishing emergency procedures in case of accidents or malfunctions

**Course Duration****Basic: 20 Mins.****Advance: 40 Mins****Validity****2 Months**

# Code of Traffic Rule in Mine

Safety



The Code of Traffic Rule in Mine Safety E-learning program provides an easy and convenient way for learners to learn about the basic traffic safety rules that apply when working in a mine. The program is designed to be engaging and interactive, with lessons that are narrated by an experienced mine safety instructor. Workers can complete the program at their own pace, and there is a test at the end of each module to ensure that they have learned the material.

**Course Duration**  
Basic: 20 Mins.  
Advance: 40 Mins

**Validity**  
2 Months

## Contractor Safety Management

Safety



The Contractor Safety Management e-learning recognizes the importance of contractor safety management and all it entails. This course features multiple modules, as well as video lectures that cover the fundamentals of safety management, workplace health and safety, hazard analysis, and risk assessment to name a few topics.

**Course Duration**  
Basic: 20 Mins.  
Advance: 40 Mins

**Validity**  
2 Months

## Cranes Safety Standard

Safety



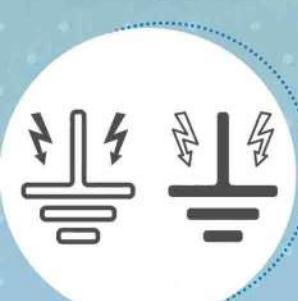
Working with cranes poses many hazards, and unsafe working practices can result in injuries, fatalities and costly damage to buildings and materials. Therefore, it's important you're aware of the main hazards and how you can avoid them.

**Course Duration**  
Basic: 20 Mins.  
Advance: 60 Mins

**Validity**  
2 Months

## Earthing System

Safety



Earthing System Safety E-learning is a course that provides health and safety professionals with the knowledge and understanding of how to safely work with earthing systems. The course covers the different types of earthing systems, their hazards, and the precautions that need to be taken when working with them. It also includes an introduction to risk assessment and the use of personal protective equipment.

**Course Duration**  
Basic: 20 Mins.  
Advance: 40 Mins

**Validity**  
2 Months



Electrical fires and electrocution are serious hazards that can occur in low voltage systems, such as those found in homes and small businesses. To reduce the risk of electrical fires and electrocution, there are a number of steps that can be taken:

- Regularly inspect electrical wiring and outlets for damage or wear, and have any issues repaired by a qualified electrician
- Avoid overloading electrical outlets or circuits by using power strips or surge protectors to distribute the load
- Use only UL-listed or CSA-approved electrical devices and appliances, and follow the manufacturer's instructions for their use
- Keep flammable materials, such as paper, curtains, and rugs, at least three feet away from heat sources, including space heaters, heat lamps, and appliances
- Unplug appliances when they are not in use, and turn off any appliances that generate heat (such as toasters, irons, and hair dryers) when they are not being used
- Install smoke detectors in your home and test them regularly to ensure they are working properly
- Never touch electrical appliances or outlets with wet hands, and avoid standing on wet or damp surfaces when using electrical appliances

**Course Duration**  
**Basic: 20 Mins.**  
**Advance: 40 Mins**

**Validity**  
**2 Months**

## Excavation

**Safety**

Excavation and trenching are amongst the most dangerous operations in the construction industry. Dangers can include cave-ins, falling loads, hazardous atmospheres and hazards from using heavy equipments. Regular pre-work inspections can reduce hazards and serious risk of injury.



**Course Duration**  
**Basic: 20 Mins.**  
**Advance: 40 Mins**

**Validity**  
**2 Months**

## Fire Safety Management

**Safety**

Fire Safety Management E-learning is an online learning course that provides individuals with the essential information needed to manage fire safety in the workplace. The course covers topics such as recognizing fire hazards, preventing fires, and evacuation procedures in the event of a fire.



**Course Duration**  
**Basic: 20 Mins.**  
**Advance: 40 Mins**

**Validity**  
**2 Months**

## Material Storage and Handling

**Safety**

The efficient handling and storing of materials are vital to industry. In addition to raw materials, these operations provide a continuous flow of parts and assemblies through the workplace and ensure that materials are available when needed in a safe way.



**Course Duration**  
**Basic: 15 Mins.**  
**Advance: 40 Mins**

**Validity**  
**2 Months**

# Welding and Cutting Safety Standard

Safety



Welding and cutting are commonly used in many industries, including construction, manufacturing, and shipbuilding, to join or cut metal materials. These processes can be hazardous, as they involve the use of high temperatures, intense light, and potentially dangerous gases and fumes. To ensure the safety of workers who perform welding and cutting, there are a number of safety standards that must be followed.

Some of the key safety considerations for welding and cutting include:

- Providing appropriate protective equipment, such as flame-resistant clothing, helmets, and goggles
- Ensuring that the work area is properly ventilated to reduce the risk of exposure to hazardous gases and fumes
- Using proper technique and equipment to avoid accidents, such as using a ground clamp to prevent electrical shock
- Storing and handling compressed gas cylinders properly to prevent accidents or injuries
- Regularly inspecting and maintaining welding and cutting equipment to ensure it is in good working condition
- Providing training and instruction to workers on how to safely perform welding and cutting tasks.

**Course Duration**  
**Basic: 20 Mins.**  
**Advance: 40 Mins**

**Validity**  
**2 Months**

## Mobile Crane

Safety



Mobile Crane Safety is an e-learning course that provides users with everything they need to know about the safe operation of mobile cranes. The course is designed for anyone who operates, or intends to operate, a mobile crane, and covers topics such as hazard identification, risk assessment, and safe operating procedures.

**Course Duration**  
**Basic: 20 Mins.**  
**Advance: 40 Mins**

**Validity**  
**2 Months**

## Positive Isolation

Safety



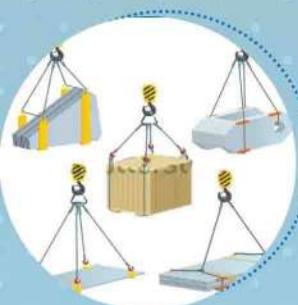
The primary objective of positive isolation is to provide a safe environment for performing maintenance, repair or replacement operations on process facilities.

**Course Duration**  
**Basic: 20 Mins.**  
**Advance: 60 Mins**

**Validity**  
**2 Months**

## Rigging Equipment Safety Standard

Safety



Rigging Equipment Safety (RES) is an e-learning course that provides users with the necessary knowledge and understanding of how to safely rig equipment. The course covers a range of topics, including types of rigging equipment, safe operating procedures, inspection & maintenance and more. RES is the perfect resource for anyone looking to learn more about rigging equipment safety.

**Course Duration**  
**Basic: 20 Mins.**  
**Advance: 40 Mins**

**Validity**  
**2 Months**

# Working in Confined Space

Safety



Working in confined spaces can be hazardous, as these spaces often have limited access and ventilation, which can make it difficult to escape in case of an emergency. Confined spaces can also contain hazardous substances or conditions, such as toxic gases, electrical hazards, or mechanical hazards.

To ensure the safety of workers who work in confined spaces, there are a number of safety measures that should be taken:

- Conduct a hazard assessment of the confined space to identify any potential hazards.
- Develop and implement procedures for safely entering and exiting the confined space.
- Provide appropriate personal protective equipment (PPE) for workers, such as respirators, protective clothing, and fall protection.
- Establish and post emergency procedures, including a plan for summoning rescue personnel in case of an accident or emergency.
- Train workers on the hazards of working in confined spaces and the procedures for safely entering and exiting the space.
- Post warning signs and barriers to prevent unauthorized access to the confined space.
- Regularly inspect and maintain equipment used in confined spaces, such as ventilation systems and protective barriers.

**Course Duration**  
**Basic: 20 Mins.**  
**Advance: 40 Mins**

**Validity**  
**2 Months**

## Scaffolding Integrated Safety Standard

Safety



The Scaffolding Integrated Safety E-learning program provides learners with the necessary training to identify and avoid scaffold hazards on the job. The course covers topics such as how to erect, use, and dismantle scaffolds safely; understanding load capacities; working with fall protection systems; and identifying common scaffold hazards. Upon completion of the course, participants will have a better understanding of how to safely work with scaffolds in their workplace.

**Course Duration**  
**Basic: 20 Mins.**  
**Advance: 40 Mins**

**Validity**  
**2 Months**

## Standard Operating Procedure (SOP)

Safety



A standard operating procedure (SOP) is a detailed, written instruction that outlines the steps required to perform a particular task or process. SOPs are commonly used in businesses, organizations, and government agencies to ensure that work is performed consistently and safely. They can be used to describe how to perform a wide range of tasks, from simple procedures like washing hands to more complex processes like operating machinery or conducting experiments.

**Course Duration**  
**Basic: 20 Mins.**  
**Advance: 40 Mins**

**Validity**  
**2 Months**

## Strata Control in Underground Coal Mines

Safety



The term "strata control" generally refers to controlling the strata to maintain stability around the mine openings underground where operations are or will be taking place. It does not cover such subjects as subsidence or strata remote from the workings.

**Course Duration**  
**Basic: 15 Mins.**  
**Advance: 60 Mins**

**Validity**  
**2 Months**

## Temporary Electrical Wiring

Safety



Temporary electrical power is utilized in many places, most commonly on construction sites. It is also used in plants and buildings during renovation operations. Any electrical installation, whether it is permanent or temporary, should be installed according to all applicable codes, standards, and regulations. Many of today's construction sites are unsafe because the electrician or electrical contractor did not install an adequate temporary wiring, use equipment that is in a good working order, or take the precautions to protect the wiring and equipment being installed.

**Course Duration**  
**Basic: 15 Mins.**  
**Advance: 40 Mins**

**Validity**  
**2 Months**

## Transportation Safety

Safety



This course is designed to provide you with the knowledge, skills and understanding required to safely operate commercial vehicles. The course will give a comprehensive overview of the requirements for safe driving, including shock and fire resistance, braking, turn signals and vehicle inspection.

**Course Duration**  
**Basic: 20 Mins.**  
**Advance: 40 Mins**

**Validity**  
**2 Months**

## Work Permit System

Safety



A standard operating procedure (SOP) is a detailed, written instruction that outlines the steps required to perform a particular task or process. SOPs are commonly used in businesses, organizations, and government agencies to ensure that work is performed consistently and safely. They can be used to describe how to perform a wide range of tasks, from simple procedures like washing hands to more complex processes like operating machinery or conducting experi-

**Course Duration**  
**Basic: 10 Mins.**  
**Advance: 30 Mins**

**Validity**  
**2 Months**

## Working at Heights

Safety



The term "strata control" generally refers to controlling the strata to maintain stability around the mine openings underground where operations are or will be taking place. It does not cover such subjects as subsidence or strata remote from the workings.

**Course Duration**  
**Basic: 15 Mins.**  
**Advance: 60 Mins**

**Validity**  
**2 Months**

# Working in Electrical Room

Safety

Electrical room safety is a system of organizational measures and technical means to prevent harmful and dangerous effects on workers from electric current, electric arc, electromagnetic field and static electricity. The major hazards associated with electricity are electrical shock, fire and arc flash.

**Course Duration**  
**Basic: 20 Mins.**  
**Advance: 60 Mins**

**Validity**  
**2 Months**

## Working on Gas Line

Safety

This course intends to learn about how to reduce the risk to safety at work from fire or other explosive events due to flammable gases and also to reduce the risk of inhalation of poisonous gases being used in industry.

**Course Duration**  
**Basic: 20 Mins.**  
**Advance: 40 Mins**

**Validity**  
**2 Months**

## Anti Bribery & Anti Corruption Training

Ethics

Anti-bribery and anti-corruption training is designed to help individuals and organizations understand and comply with laws and regulations related to bribery and corruption. It can help to prevent employees from engaging in activities that could lead to legal or regulatory violations, and can also protect an organization's reputation and bottom line.

**Course Duration**  
**1 Hrs.**

**Validity**  
**2 Months**

## Anti-Money Laundering

Ethics

Anti-money laundering (AML) refers to the laws, regulations, and procedures that are designed to prevent, detect, and report money laundering activities. Money laundering is the process of disguising the proceeds of illegal activity as legitimate funds, and it is often used to conceal the proceeds of crimes such as drug trafficking, terrorism, and fraud.

**Course Duration**  
**1 Hrs.**

**Validity**  
**2 Months**



It is important for individuals to be aware of their own behavior and to make sure that it is not sexually harassing or offensive to others. Some tips for preventing sexual harassment include:

- Respecting the boundaries and consent of others
- Avoiding inappropriate or suggestive comments or gestures
- Not making physical contact with others without their permission
- Not sharing sexually explicit or suggestive materials with others without their consent
- Seeking out and respecting the boundaries of others
- Reporting any instances of sexual harassment that you witness or experience

By following these guidelines, individuals can help to create a safer and more respectful environment for everyone.

**Course Duration**  
35 Mins.

**Validity**  
2 Months

## Social Media Guidelines

Social media guidelines are rules or principles that outline how individuals or organizations should use social media platforms, such as Facebook, Twitter, and Instagram. These guidelines can help to ensure that social media use is consistent with an organization's values, goals, and policies, and can help to prevent social media mistakes or missteps that could harm an organization's reputation or image.

Some common elements of social media guidelines may include:

- A statement of purpose for the organization's use of social media
- Guidelines for how to interact with followers and other users on social media
- Rules for posting content, including what types of content are appropriate and how to properly attribute and source information
- Guidelines for managing comments, including how to respond to negative or inappropriate comments
- Policies for protecting confidential or proprietary information
- Procedures for reporting and addressing violations of the guidelines

**Course Duration**  
45 Mins.

**Validity**  
2 Months

## Emission Pollution And Control

The pollution control system is widely understood as the only air pollution control system. But it also covers noise pollution, water pollution, soil pollution, etc. Companies that care for the environment have a variety of pollution control systems installed to monitor and prevent the pollution levels from increasing. Hence, the Pollution Control System helps reduce or prevent pollution of the environment.

**Course Duration**  
1.5 Hrs.

**Validity**  
2 Months

## Industry 4.0

Industry 4.0 increases the awareness about the term 'Digital' - as a concept, and also gives an overview of various digital technologies such as Internet-of-Things (IoT), data analytics, cloud computing, and cyber-physical systems and their applications associated with it – as rightly said by the chairman of Tata Group "Going digital is no longer an option, it is the default".

**Course Duration**  
6 Hrs.

**Validity**  
2 Months

## Learn English

Having a strong foundation in English grammar is extremely helpful in improving the communication skills in both spoken and written English. This course in English proficiency looks at the way grammar can be used as a tool for enhancing our communication (both written and spoken). It touches upon the various elements of grammar like noun, pronoun, adjective, prepositions, etc. The clear grammar explanations and examples will help gain confidence in using the language for effective communication. The grammar knowledge can be put into practice by doing the exercises at the end of each module as well as at the end of the course.

Course Duration  
1.5 Hrs.

Validity  
2 Months

## Total Quality Management

Quality Management

Total Quality Management is the essential Management approach that ensures that organizations meet and exceed customer expectations in respect of products and services. The First-ever TQM diagnosis for The Deming Grand Prize (DGP) challenge conducted by JUSE was carried out at Tata Steel in the year 2011, and eventually, Tata Steel became the first integrated steel company in the world to win the coveted DGP in 2012.

Course Duration  
4 Hrs.

Validity  
2 Months

## TQM Policy Management

Quality Management

Policy is important in the realm of Total Quality Management. It helps organizations to set goals and establish rules that promote the quality of work performed while minimizing the risks involved over time. The policies also help organizations uphold high standards, ensuring that their products and services are of high standard.

Course Duration  
30 Mins.

Validity  
2 Months

## TQM Employee Involvement Initiatives

Quality management

TQM Employee Involvement Initiatives are offered to ensure employees are highly committed to the organization. The TQM Quality Management System is based on the belief that people and their actions are central to the success or failure of an organization. Employees who initiate TQM initiatives foster a positive corporate culture and improve performance by leading the entire organization.

Course Duration  
1.8 Hrs.

Validity  
2 Months



Daily management is a vehicle that enables consistent performance through a stable process. This methodology helps to improve performance through various means:

- Deciding right KPIs
- Monitoring of KPIs
- Abnormality analysis
- Review (Stability & Conformity)

It helps to ingrain systems thinking and process approach, and drives a culture of improvement and innovation, leading to superior business results. The program is designed to explain how to make Daily activities more efficient and standardized whereby managers can focus more on improvement activities.

**Course Duration**  
45 Mins.

**Validity**  
2 Months

## QA and QMS



Quality Assurance and Quality Management System is designed to address the need for timely, accurate and effective delivery of quality services. QA and QMS provide specific management functions for improving quality improvements as well as for enhancing customer satisfaction.

**Course Duration**  
5 Hrs.

**Validity**  
2 Months

## Fundamentals of Problem Solving and Task Achieving



Fundamentals of Problem Solving and Task Achieving is an e-learning course designed to help students develop the critical thinking skills they need in order to successfully complete college-level courses and succeed in graduate programs. The advanced features of this course make it ideal for flexibility, convenience, and interactivity.

**Course Duration**  
40 Mins.

**Validity**  
2 Months

## Becoming An Entrepreneur



Did you ever have an idea that could bring value to your organization? This is the first step toward becoming an Entrepreneur, in other words, an entrepreneur within your company. Being an intrapreneur is primarily a state of mind. It is about discovering new ways of working on an exciting project or an opportunity to invent.

**Course Duration**  
7 Hrs.

**Validity**  
2 Months

# Building Customer Focus In Your Team

Managerial



Collaboration has become a major factor that contributes to competitiveness and performance. Organizations must become much less compartmentalized, and employees must learn to leverage differences, handle conflicts constructively, and work together more effectively. In this course, you will learn about:

- Promoting cooperation and sharing vision
- Handling different generations
- Dealing with team conflicts
- Communicating remotely

Course Duration  
5 Hrs.

Validity  
2 Months

## Conducting Effective Performance Reviews

Managerial



Three qualities make performance reviews more effective. Performance reviews should be achievement-oriented, fair and accurate, and developmental for the review.

Course Duration  
6 Hrs.

Validity  
2 Months

## Develop Your Creative Thinking

Managerial



Creative thinking is emerging as a key skill to effectively address today's problems and challenges. Most of us only use intellect and emotions to deal with any situation. The practices discussed in this course will help you develop your creative thinking, discover the importance of harnessing intuition, and how to do it.

Course Duration  
7 Hrs.

Validity  
2 Months

## Developing Collaboration In Your Team

Managerial



Collaboration has become a major factor that contributes to competitiveness and performance. Organizations must become much less compartmentalized, and employees must learn to leverage differences, handle conflicts constructively, and work together more effectively.

Course Duration  
6 Hrs.

Validity  
2 Months

# Demystifying Project Management

Managerial



Complex project management involves effectively handling the 3 phases of launching, controlling and completing the project, while engaging with key stakeholders and providing leadership to people deployed on the project. In this course, you will learn about:

- Defining and launching the project
- Making the right decisions to meet project deliverables
- Involving different people on the project
- Managing the project within budget
- Finishing the project successfully

Course Duration  
7 Hrs.

Validity  
2 Months

## Design Thinking Of Powerful Solutions

Managerial



Design Thinking is an effective approach to solve complex, difficult problems. This course will help you to understand how to apply design thinking, through a step-by-step journey which will bring you closer to resolving the problems that you are confronted with.

Course Duration  
4 Hrs.

Validity  
2 Months

## Effective Prioritization And Time Management

Managerial



Prioritization helps you determine what you need to do and why it is important. It also helps you to identify the most urgent items you must tackle first. Along with prioritizing tasks, you also need to manage the time to be more productive. Time management refers to the way you organize and plan how much time you spend on specific activities.

Course Duration  
4 Hrs.

Validity  
2 Months

## Effective Talent Management

Managerial



In a highly competitive talent market, organizations must set up an effective talent management system that will benefit both employees and the company. They must acknowledge that human resources are their most important asset, and hold the key to competitive advantage. In this course, you will learn about:

- Understanding the labour/talent market
- Motivating the team through meaningful work design
- Developing and retaining in-house talent
- Seeking the right talent from outside
- Engaging in shared leadership

Course Duration  
7 Hrs.

Validity  
2 Months



Get ready to enhance your thinking about Sales. Selling solutions instead of just products means that you will need to understand your clients well. This involves work, but the rewards are for the taking in terms of both higher sales and stronger customer relationships. In this course, you will learn about:

- Gain customer's interest
- Use the consultative selling process
- Shift from Product-selling to Solution-Selling
- Outshine in client meetings
- Negotiate effectively using empathy

Course Duration  
7 Hrs.

Validity  
2 Months

## Enhancing Your Personal Effectiveness



Personal effectiveness integrates ideas from the power of positive thinking and positive psychology. It means making use of all the resources you have, both personal and professional, like your talents, strengths, skills, energy and time. It enables you to master life and achieve both work and life goals.

Course Duration  
6 Hrs.

Validity  
2 Months

## Financial Analysis For Decision Making



As a Manager, it is important to understand, analyze and evaluate the financial implications of proposals or decisions that you make. The focus of this course is on the key concepts of corporate finance and the financial tools that will help you make the right decisions from a value creation perspective. You will learn about:

- The 3 main Financial Documents
- Important keys to financial analysis
- Analyzing the profitability of a Project
- Creating value through business decision

Course Duration  
12 Hrs.

Validity  
2 Months

## Establishing And Leading A Remote Team



Getting the team to work in a remote setup and maintaining productivity is a great challenge nowadays. As a manager, it is imperative that you ensure team engagement and alignment towards a common goal, even as your team works remotely. The focus of this course is on how to setup and develop the best possible remote team as a manager. You will learn about:

- Setting up a remote team
- Laying good foundations for remote teams
- Fostering teamwork and trust
- Motivating and supporting the team
- Delivering results

Course Duration  
5 Hrs.

Validity  
2 Months



To be successful as a sales person, it is essential that you adopt a proven customer-oriented sales process and associated techniques. The ability to build relationships with prospects, persuade them to make purchases and generate repeat business is at the heart of selling. In this course, you will learn about:

- The elements of successful selling
- Connecting effectively with prospects
- Recognizing your prospect's requirements
- Persuasively presenting your offering aligned to prospect's requirements and motivations
- Effectively addressing concerns / objections
- Closing the deal.

**Course Duration**  
10 Hrs.

**Validity**  
2 Months

## Fostering Team Learning



In an increasingly complex and dynamic environment, companies and their employees must be able to learn, change and reinvent themselves constantly. To be innovative and adaptable, the ability to learn has become a key factor in the success of organizations, teams and individuals.

**Course Duration**  
6 Hrs.

**Validity**  
2 Months

## Happiness At Work



As a manager, if you want your team to be competent and engaged, you need to create a happy work environment. In this course, you will learn about adopting a positive mindset, creating a positive team atmosphere, understanding team well-being and making the office a happy place.

**Course Duration**  
5 Hrs.

**Validity**  
2 Months

## Essentials Of Lean Management



This course seeks to answer a fundamental question: What is the best process for you, and how can you most effectively deploy it? You are about to discover the lean management toolkit and how it can help you eliminate waste. You will learn about:

- The lean philosophy
- Key metrics for upgrading processes
- Continuous Improvement
- Increasing Quality at the source
- On-time management

**Course Duration**  
10 Hrs.

**Validity**  
2 Months



Managing our emotions well and responding meaningfully to the emotions of others is crucial for working collaboratively with others and achieving productive outcomes. Developing empathy and connection with others enables us to create a harmonious work environment, leads us to better decisions and positively impacts innovation.

Course Duration  
6 Hrs.

Validity  
2 Months

## Manager As A Coach



Being a good coach is about supporting your team to succeed, not through instructions and close supervision, but through developing their capabilities and confidence to take on tasks and challenges. This means a move from "doing everything" to "getting everything done" — and gradually resting aside your technical capability. Coaching techniques, in so far as they foster autonomy, are an essential management tool.

Course Duration  
5 Hrs.

Validity  
2 Months

## Managing In An Agile Organization



Management is a process of engaging people, working effectively with stakeholders, and enhancing value for clients. To get the best out of people in an agile organization, we must empower them to share responsibility in achieving organizational outcomes.

Course Duration  
7 Hrs.

Validity  
2 Months

## Performing Effectively As A First Time Manager



As a manager, your main challenge will be to make sure the work gets done, which is much more difficult than just doing it yourself. Being a manager involves a lot of big changes in terms of status, responsibilities and tasks. The first 100 days are crucial for first-time managers - you will have to get off on the right foot and set yourself up for success.

Course Duration  
7 Hrs.

Validity  
2 Months



Recruitment and retention of key people is vital for sustained organizational success. While it is getting easier for us to find the right people through digital technology, this just as easily allows our rivals to poach them from us. We thus need to rise to the challenge of employing all the best practices for acquiring and keeping top talent. In this course, you will learn about:

- Mapping required knowledge and skills for identified roles
- Attracting talent and encouraging applications
- Recruiting the best candidates - through assessing fit on competencies and culture
- Encouraging loyalty among team members

**Course Duration**  
4 Hrs.

**Validity**  
2 Months

## Productively Engaging Your Team



As managers we of course want our teams to approach every day giving their best and being engaged. This is achievable, and managers play a crucial role in fostering the team motivation that makes this happen.

**Course Duration**  
5 Hrs.

**Validity**  
2 Months

## Step Up Your Communication Skills



Communication is a fundamental human skill that is required to connect with people, lead them effectively and contribute to organizational excellence. This course helps you to hone your overall communication skills so that you could enhance your personal and professional effectiveness across the different roles that you play in life.

**Course Duration**  
7 Hrs.

**Validity**  
2 Months

## Shaping A Delightful Customer Experience



As a Sales / Customer Service associate you consistently want to deliver customer delight. In this course, the focus will be on understanding every aspect of the customer's experience, and exploring how to make a positive difference. You will learn about:

- How to amaze your customers
- Motivating your customers
- Being responsible to your customers
- Winning your customers's confidence
- Delivering a lasting impact and building customer loyalty

**Course Duration**  
8 Hrs.

**Validity**  
2 Months



A key account manager's main objective is to generate as much value as possible from key accounts. Gaining and maintaining in-depth knowledge of your accounts, building a network of strategic relations, and correctly assessing your accounts are the key skills that you need to master in order to build profitable relations with your clients. In this course, you will learn about:

- Role of a key account manager
- Selecting your key accounts
- Managing key accounts
- Building strong customer relations

Course Duration  
6 Hrs.

Validity  
2 Months

## Successful Remote Working



Remote working is quite common these days. It means working from home, operating from a different location or from a remote office. It does require some special skills and adaptations.

Course Duration  
5 Hrs.

Validity  
2 Months

## Successful Digital Marketing



In the current business environment it is vital for any marketing professional to have a clear grasp of the fundamentals of digital marketing and how to adapt marketing strategies suitably using the latest tools. This course will focus on "digital" and its impact on the overall marketing mix. You will learn about:

- Digital consumers
- Traversing through the digital landscape
- How digital can be used for improving your product
- Leveraging digital communication
- Creating a marketing mix that embraces the benefits of digital

Course Duration  
5 Hrs.

Validity  
2 Months

## Stepping Up Your Team Performance



Managers must define the team's framework and drive team dynamics, producing the conditions necessary for high performance. This course focuses on what it means to be a real team, and the four important stages of team development: forming, storming, norming and performing. You will learn about:

- Getting a "real team" in place
- Defining team's stages of development
- Enabling the team to progress through the stages of development
- Handling conflicts between members
- Managing team's performance

Course Duration  
4 Hrs.

Validity  
2 Months



To be a successful sales manager, it is important to coach and develop your sales team so that they deliver outstanding performance. The focus of this course is on equipping you with key insights about how to unleash the potential of your sales team. You will learn about:

- The roles of a sales manager
- Adapting coaching to performance
- Delivering ongoing training
- Setting team goals and motivate wins
- Running a sales meeting

**Course Duration**  
**5 Hrs.**

**Validity**  
**2 Months**



# WeAlsoMakeTomorrow



tsic@tatasteel.com



www.capabilitydevelopment.org