



EGYPT-JAPAN UNIVERSITY OF SCIENCE AND TECHNOLOGY
الجامعة المصرية اليابانية للعلوم و التكنولوجيا
エジプト日本科学技術大学
INDUSTRY TRAINING UNIT - ITU

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CORPORATE TRAINING CATALOGUE 2025

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About US

E-JUST at a Glance

Egypt-Japan University of Science and Technology (E-JUST) is a research university, located in New Borg El-Arab city in Alexandria, Egypt. It was established as a bilateral agreement project between the Egyptian and Japanese governments in 2009, with an ambition to cultivate an academic environment and become a benchmark for the Egyptian and African countries in education.



Corporate Training

E-JUST is keen to work closely with local companies and industries to plan, design and deliver effective training solutions that meet their organizational goals, as well as, their employees' learning needs. We believe that the quality of the training is directly proportional to the knowledge and effectiveness of the trainer. We stand out since our training programs are delivered by responsive educators with research and professional expertise not only from Egypt, but from Japan as well.





The Industry Training Unit: Where Academia Meets the Industry

Are you looking to enhance the skills of your employees and expand their knowledge? Look no further! Our training unit is the perfect place for companies seeking to expand the expertise of their employees in various fields. Whether you are aiming to upskill a professional or looking to kick-start the career of a new hire, our training center has something to offer for everyone.

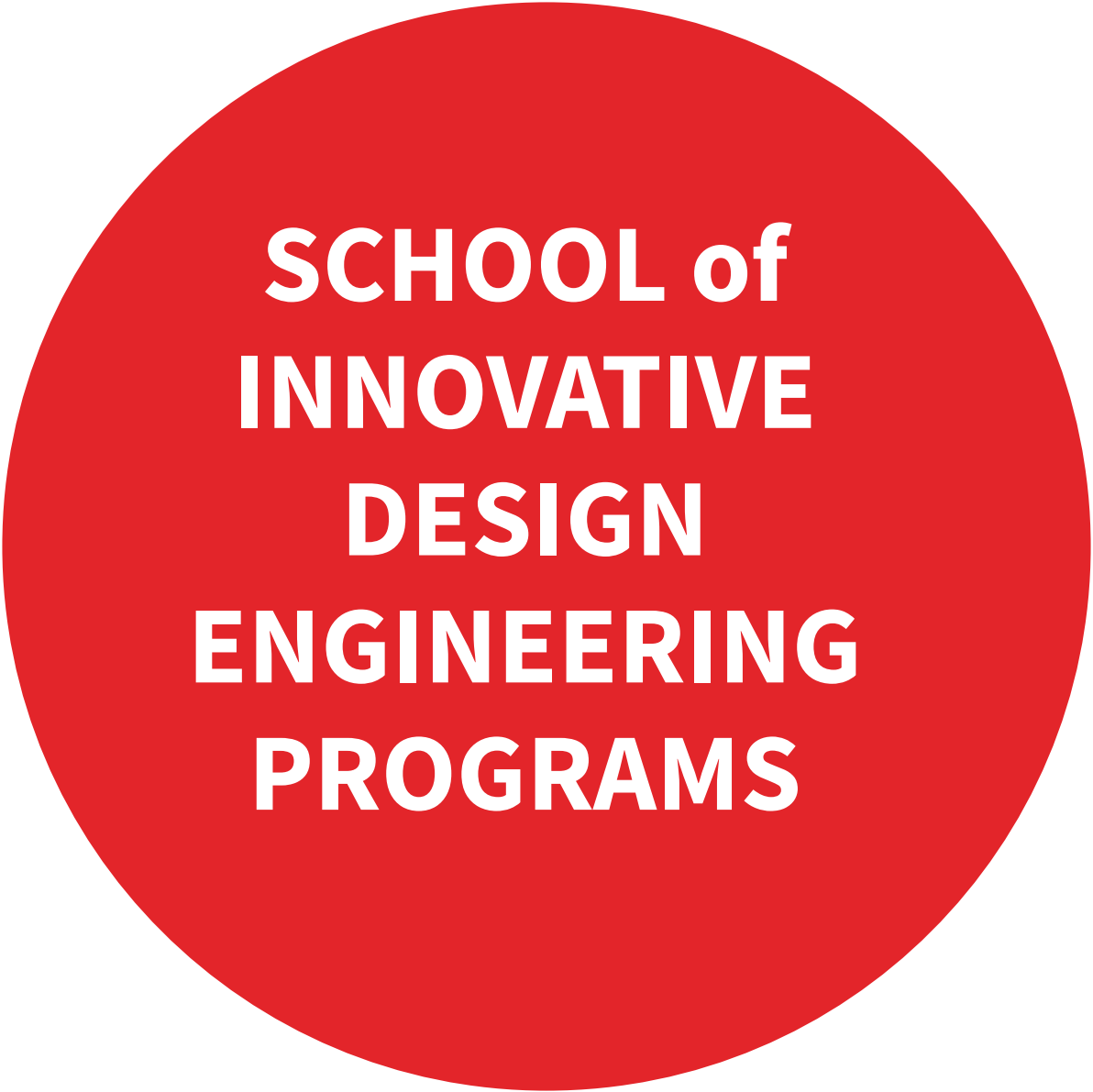
Expert Instructors

Our team of expert instructors brings a wealth of experience and knowledge to the table. They are dedicated to providing high-quality education, guiding trainees through the latest industry practices, and offering valuable insights based on real-world experience. With their support, trainees can gain a deeper understanding of their field and develop the skills necessary to thrive in today's business world.

Tailored Course Offerings

We understand that every company has unique goals and aspirations. That's why we offer tailored courses depending on the need of each company.

Send us an email on itu@ejust.edu.eg to schedule your next training!



**SCHOOL of
INNOVATIVE
DESIGN
ENGINEERING
PROGRAMS**

Industrial Robots Practice

This training session is designed to help engineers, managers, and investors to recognize the benefits of integrating industrial robots in their factories. Participants will be able to understand the function and construction of different types of industrial robots, analyze them using simple software, and gain experience in their operation and maintenance tasks.

Target audience

- Managers, practical engineers, and investors

Contents

- Industrial robots in food, automotive, plastics, and home appliances industries
- Types and components of industrial robots
- Analysis and task planning of industrial robots
- Software to analyze and operate industrial robots
- Maintenance of industrial robots
- Practical operation of industrial robots



Robot Operating Systems (ROS2)

This course offers a comprehensive introduction to ROS2 (Robot Operating System 2), designed specifically for industrial applications. Participants will learn the foundational concepts of ROS2, including its architecture, communication mechanisms, and tools for developing and managing robotic software. The course will cover essential topics such as nodes, topics, services, and actions, along with hands-on experience in building and deploying ROS2-based systems in an industrial setting. By the end of this training, participants will be equipped with the knowledge and skills to implement ROS2 in real-world industrial robotics projects, enhancing automation and operational efficiency.

Target audience

- Fresh graduates in industries.
- Interns in companies.
- Automotive sectors.
- Industrial Automation sector

Contents:

- Introduction to ROS and ROS2
- ROS2 Publisher and Subscriber
- URDF, Robot Control, and Gazebo
- ROS 2 Services
- ROS 2 Actions
- ROS 2 Custom Messages and Launch Files
- ROS 2 Multiple Machines Communications
- ROS 2 Navigation Stack

Program Duration: 10 days



Nontraditional Machining Technology

The traditional methods using cutting tools are found to be unsuitable to machine Difficult-to-Cut (DTC) materials economically and there is no possibility that they can be further developed to do so, because most of these materials are harder than the materials available for use as cutting tools. Non-traditional processes are capable to machine a wide spectrum of metallic and non-metallic materials irrespective of their hardness or strength. These are non-traditional in the sense that traditional tools are not employed; instead, energy in its direct form is utilized.

Target audience:

- Manufacturing technicians
- Researchers
- Machinists
- Manufacturing engineers

Contents

- Introduction to the traditional Machining Processes
- Mechanical nontraditional machining operations and machine tools
- Chemical and electrochemical nontraditional machining operations and machine tools
- Thermo-electrical non-traditional machining operations and machine tools

Program duration: 3 days



Machining Difficult-to-cut Materials

During recent decades, engineering materials have greatly developed. These materials such as hardened steels, stainless steel, super alloys, carbides, ceramics, and fiber-reinforced composite materials are frequently applied in the modern industry. The cutting speed and the material removal rate using traditional methods like turning, milling, grinding, and so on tend to fall. To meet these challenges, new processes with advanced methodology and tooling have to be developed. These are the nontraditional processes, which are capable of machining a wide spectrum of these difficult-to-cut materials irrespective of their hardness. This training course deals with the machining of stainless steel, and super alloys

Contents

- Introduction
- Traditional machining of stainless steel
- Traditional machining of super alloys
- Nontraditional machining of stainless steel and super alloys
- Machining by mechanical techniques
- Machining by electrochemical techniques
- Machining by thermal techniques
- Machining of composite materials
- Machining of ceramic materials

Target Audience

- Machinists
- Tool and die makers
- Manufacturing engineers
- Researchers

Program duration: 3 days



Design for Machining

Introduces the design recommendations for economic machining and sources of dimensional variations by traditional and nontraditional processes. Covers the design for machining by cutting (including broaching, thread and gear cutting), grinding, and finishing processes. Presents the design recommendations in the mechanical, chemical, and electrochemical, and thermo-electrical nontraditional machining domain.

Contents

- Design for machining
- Design for machining by cutting –turning–drilling - reaming – boring – milling - shaping, planing, and slotting – broaching - thread cutting - gear cutting
- Design for grinding
- Design for finishing processes
- Design for chemical and electrochemical machining
- Design for thermal machining
- Design for USM
- Design for abrasive jet machining

Target Audience

- Machinists
- Tool and die makers
- Manufacturing engineers

Program duration: 3 days



CNC Programming

- Provide the entry level manufacturing technician or CNC operator and manufacturing engineers with the basic knowledge of machining operations using traditional machine tools and basic CNC programming and CNC machine operation.
- Provide the student with hands-on activities on actual machines in the machine shop and the CNC lab.
- Have a basic understanding of advanced manufacturing operations and may be able to be hired for entry level traditional machining or CNC machining operations.

Target Audience

- Manufacturing engineers
- Manufacturing technicians
- Tool and die makers
- CNC operators

Content

- Introduction
- Coordinate system
- Machine movements in NC systems
- Interpolation
- Control of NC machine
- Components of NC machine tools
- Tooling for NC machine tools
- Types of NC machines
- Input units
- Forms of NC instructions
- Program format
- Feed and spindle speed coding
- Features of NC systems
- Part programming
- Programming machining centers
- Programming turning centers
- Computer assisted part programming
- CAD-CAM approach to part programming.

Program duration: 3 days

Environment-Friendly Machine Tools and Operations

The environment-friendly machine tools and operations are described which tends to detect the source of hazards and minimize their effect on the operator, machine tool, and environment. In the domain of traditional machining, the hazard ranking of cutting fluids is adopted, MQL, and ecological machining, and their applications are presented. It covers the health hazards and related recommendations of nontraditional machining processes.

Target audience

- Machinists
- Tool and die makers
- Manufacturing engineers
- Researchers

Content

- Introduction
- Traditional Machining
- Cutting fluids
- Hazard ranking of cutting fluids
- Health hazards of cutting fluids
- Cryogenic cooling Ecological machining
- Factors affecting the use of MQL
- Applications of ecological machining
- Nontraditional machining Processes
- Chemical machining
- Electrochemical machining
- Electro-discharge machining
- Laser beam machining
- Ultrasonic machining
- Abrasive jet machining
- **Program duration:** 3 days



Hybrid and Assisted Machining Technologies

The performance of machining processes can be enhanced in terms of material removal rate, machinability, product accuracy and surface characteristics by:

- combining two processes to form a new hybrid process
- introducing thermal, vibration or magnetic assistance to machining processes.

Hybrid machining processes are divided into EC processes and thermal processes. Assisted processes are machining processes in which an external energy source (laser, or plasma) is used to enhance the chip-generation mechanism and improve the machinability of difficult-to-cut metals and alloys. To achieve good surface finish, high accuracy and high precision at low cost, vibration or ultrasonic vibration can be used. Magnetic field-assisted processes are processes in which the machining forces are controlled by a magnetic field.

Target audience

- Manufacturing engineers
- Manufacturing technicians
- Tool and die makers
- CNC operators
- Researchers

Contents

- Hybrid EC processes
- Hybrid thermal processes
- Assisted machining
- Ultrasonic Assisted Machining (UAM)
- Magnetic field assisted processes

Program duration: 3 days



Design for Manufacturability (DFM)

DFM is the classic method of creating good product designs that reduce part count, simplify manufacturing techniques, and standardize parts and materials with the ultimate goal of developing a quality product at the lowest cost while saving time. The primary advantage of the design for assembly (DFM) methodology is that it ensures a good design early in the design process before much effort and cost has been expended in pursuing an ineffective design.

- Understand how DFM impacts product cost and quality
- Identify ways to simplify your product and dramatically reduce part count
- Understand the six principles of mistake-proofing (poka-yoke) and how to proactively apply it.
- Learn the principles of design for assembly for both mechanical and electronic products
- Learn how to optimize tolerances to enhance manufacturability
- Determine the 10 key steps to DFM implementation
- Obtain practical DFM feedback on your existing products or products under development

Target audience

- Machinists
- Engineers
- Design managers
- Product managers
- Production managers

Contents:

- Material and process evaluation
- Raw material standardization
- General DFM guidelines

- Machining guidelines and examples
- Sheet metal and stamping guidelines and examples
- Injection molding guidelines and examples

Program duration 3 days

Introduction to Micro Fabrication "Enabling Technology and Applications"

This course will be specifically useful for persons who are concerned with training/teaching, research and industrial applications of micro devices such as micro sensors. The course is also designed to cater the needs of scientists from R & D labs and practicing engineers from industry.

Target Audience:

- Science and engineering research students
- Engineers in related micro fabrication industry, IC technology
- Managers who are interested in new business

Course Contents:

- Micro fabrication applications
- Clean room design and safety
- Micro fabrication technologies:
- Photo lithography
- Physical vapor deposition

Course Duration: 3days

- Physical vapor deposition
- Etching process (Dry & Wet)
- Case study



Warehouse Management, Warehousing Performance Measures, Storage Control & Safety

The Advanced Warehouse Management, Warehousing Performance Measures, Storage Control and Safety training course covers the warehouse operations theories, concepts and operational strategies ensuring the efficient flow of products in and out of the facility, and ensuring orders are fulfilled and products are in stock, but not overstocked. Hence, ensuring profitability and minimizing overhead and labour costs. This training course will also enable delegates to measure warehouse metrics critical for providing team leaders with a clear vision of potential issues and opportunities for improvements. Participants on the Advanced Warehouse Management, Warehousing Performance Measures, Storage Control & Safety training course will develop the following competencies:

- Effectually managing the operations and functions of the warehouse.
- Classify distinction between warehousing processes
- Evaluating warehousing strategies from a qualitative and quantitative perspective
- Recognizing that the safety of personnel and security of products are the basic building blocks for warehouse operations
- Optimizing warehouse operations and warehouse space availability as impacted by equipment and product flow
- Recognizing better efficiency through warehouse performance measurements

Target Audience

- Warehouse operators
- Operations team leaders
- Logistics and supply chain professionals

Content

- Warehouse operations and logistics best practices
- Optimizing warehouse operations workflows

- Safety and risk management in warehouse operations
- Asset tracking best practices for warehouse operations
- Design criteria for warehouse accreditation

Program Duration 5 Days

Project Planning and Management

Project management is the application of knowledge, skills, tools, and techniques to project activities to meet project requirements. The project life cycle includes five phases: Initiating, Planning, Executing, Monitoring and Controlling, and Closing. In the 21st century project management has become an essential business skill for all kinds and levels of professionals especially those in middle and top management positions in industry, service and/or government. This program will introduce the audience to the importance of project management, and the underlined basic concepts, methods and tools. The course also includes an introduction to Microsoft Project™.

Target Audience: Professionals from all levels of management and operations.

Contents

- Introduction to Project Management
- Project life cycle management
- Scope planning and work breakdown structure
- Time planning and the Critical Path method
- Activity networks.
- Resource allocation.
- Project crashing and planning tradeoffs.
- Introduction to MS Project.
- Using MS Project to develop project time plans and budgets.
- Project execution and control
- Earned value analysis

Program duration: 5 days

Quality Management

This course provides a comprehensive overview of quality management principles, focusing on Total Quality Management (TQM) and ISO standards. Participants will learn to apply various quality tools and techniques to ensure process control and continuous improvement. Furthermore, participants will gain hands-on experience with Excel for tracking quality metrics, analyzing quality costs, and implementing basic quality tools like histograms, scatter diagrams, and Pareto charts. Additionally, Minitab will be introduced for more advanced quality control applications, including statistical process control (SPC) and capability analysis. The course ensures that participants can confidently apply these tools to manage quality processes, identify improvement opportunities, and achieve consistent quality performance.

Target Audience:

Quality/production managers, compliance officers, quality/production supervisors, quality control/assurance specialists, engineers in various industries who are responsible for quality assurance and control, and anyone involved in quality management and improvement in manufacturing, service, or public sectors. It's also suitable for individuals looking to gain a comprehensive understanding of quality management systems and tools.

Contents:

- Introduction to Quality Management Systems
 - o History and evolution of quality management
 - o Importance of quality in business performance
 - o Overview of ISO 9001, TQM, and other systems
- Quality Control and Assurance
 - o The 7 Quality Tools
 - o Quality Costs
- Total Quality Management (TQM) Principles
- Process Improvement Tools
 - o PDCA (Plan-Do-Check-Act)
 - o Input-Process-Output, SIPOC Diagram and Root Cause Analysis
 - o Quality Function Deployment (QFD)
- International Standards for Quality
 - o Introduction to ISO 9001 and its application
 - o Key elements and requirements of ISO 9001 certification
 - o Compliance and audit procedures
- Practical Case Studies and Applications
- Green Belt Certification Exam Preparation
 - o Practice exam questions and case studies.

Program Duration: 5 days



Statistical Quality Control

This course provides a comprehensive understanding of Statistical Quality Control (SQC) techniques, emphasizing both foundational tools like the Seven Quality Tools and advanced methods such as Design of Experiments (DoE) and acceptance sampling. Participants will learn to implement, interpret, and use control charts, perform process capability analysis, and implement acceptance sampling to monitor processes. The course also covers the use of Minitab for statistical analysis and Excel for basic data management and tool implementation. By the end of the course, participants will be able to apply these techniques and tools to monitor, control, and optimize quality in their processes.

Target Audience:

Quality control engineers, supervisors, production managers, and professionals involved in quality assurance and control. The course is designed for those looking to enhance their expertise in statistical techniques for quality monitoring, control, and process optimization.

Contents:

- Introduction to Statistical Quality Control
- The Seven Quality Tools
- Control Charts
 - o Control charts
 - o Interpreting control charts for monitoring process performance
 - o Using Minitab to create and analyze control charts.
- Process Capability Analysis
- Acceptance Sampling
 - o Introduction to sampling methods
 - o Designing acceptance sampling plans for quality inspection
 - o Analyzing sampling plans using Minitab
- Design of Experiments (DoE)
 - o Introduction to DoE: Objectives and applications in process optimization
 - o Factorial designs and understanding interaction effects.
 - o Conducting and analyzing experiments using Minitab
 - o Optimizing process performance based on experimental results.
- Practical Applications
- Green Belt Certification Exam Preparation
 - o Practice exam questions and case studies.

Program Duration: 5 days

Lean Six Sigma Green Belt

This course equips participants with a solid foundation in both Lean and Six Sigma methodologies, enabling them to lead process improvement projects and contribute to larger Six Sigma initiatives. Furthermore, this course equips participants with the skills to apply the Lean Six Sigma methodology, focusing on the DMAIC framework (Define, Measure, Analyze, Improve, Control) to reduce process waste, improve efficiency, and apply data-driven decision-making. Participants will learn to use Excel for data management, basic statistical analysis, and process visualization, while Minitab will be used for advanced statistical analysis, including control charts, hypothesis testing, and design of experiments (DoE). By the end of the course, participants will be proficient in using these tools to conduct root cause analysis, optimize processes, and lead Lean Six Sigma projects.

Target Audience:

Process engineers, operations managers, manufacturing and service industry professionals, engineers and anyone involved in process improvement, quality control, or operational excellence. Ideal for mid-level managers, engineers, consultants, and team leaders aiming to enhance their expertise in Lean Six Sigma.

Contents:

- Introduction to Lean Six Sigma
- Six Sigma DMAIC Framework
- Lean Principles and Tools
 - Value Stream Mapping (VSM)
 - 5S (Sort, Set in order, Shine, Standardize, Sustain)
 - Waste identification and reduction (7 wastes)
- Six Sigma Tools and Techniques
 - Voice of Customer
 - Statistical Process Control (SPC)
 - Failure Modes and Effects Analysis (FMEA)
 - Quality tools
 - Design for Six Sigma (DFSS) Methodology
- Project Leadership and Change Management

- Six Sigma Project Management
- Leading Lean Six Sigma teams
- Communication and stakeholder engagement
- Managing change and sustaining improvements
- Practical application of Lean Six Sigma
- Green Belt Certification Exam Preparation
- Practice exam questions and case studies.

Program Duration: 5 days

Lean Manufacturing

The course introduces participants to the adaptation of mass production, in which workers and work cells are made more flexible and efficient by adopting methods that reduce all forms of waste. Lean practitioners specify the value for the end customer by product family; identify all steps in the value stream for each product family; eliminate steps, actions or practices that do not create value; make the remaining value-creating steps occur in a tight and integrated sequence so that the product will flow smoothly toward the customer; let customers draw value from the next upstream; and enable managers and teams to eliminate further waste and pursue perfection through continuous improvement.

- Production managers
- Quality and production specialists

Content

- Principles of lean manufacturing
- Waste minimization
- Inventory reduction
- Minimum work-in-process
- Reduction of setup time
- JIT deliveries and pull systems
- Perfect first-time quality
- Worker teams
- Worker involvement
- Flexible production systems
- Continuous improvement
- Case studies

Program Duration 5 days

Performance Excellence

The operational performance quality has a major impact on the success of every organization. In Japan the Deming award is granted for organizations who have established inherent continuous improvement systems within their operating procedures. A similar award is designed in the United States called Baldrige Award for performance Excellence. It has evolved since its establishment in 1981 until today to cover different operations environments, such as general private businesses, healthcare, educational, and even none-profit organizations. In this course, the participants will study the principles of performance improvement via the traditional tools of Engineering management and Industrial engineering. Top managers and middle managers will be able to see case studies from the local market with focus on most common obstacles in application of modern methods and how to overcome them.

Target Audience:

- Senior management in production facilities.
- Middle management in production facilities
- Educational institutions quality assurance officers.
- Healthcare institutions quality assurance officers
- Total quality management engineers.

Course Contents:

- Introduction to TQM
- Baldrige Award criteria
- Deming Award overview
- Case studies from Egyptian industry

Course Duration: 2 days

Waste Reduction and Cost Savings

The classification of wastes is a key element of understanding of the industrial problems. Wastes in the industrial environment cause additional cost and reduce competitiveness of the Egyptian SME's. Understanding how to categorize wastes and searching for benchmark methods to reduce them improves the profitability and immediately impacts manager's credibility. Keeping track of wastes means that costing department will always be on top of the operational costs and rapid costing will be much more accurate.

Target Audience:

- Costing managers
- Middle managers
- Financial managers
- Junior TQM engineers

Course Contents:

- Waste classes.
- Waste and cost relationship
- Monitoring and controlling of wastes
- Case studies of waste reduction and its impact
- KPI libraries and applications

Course Duration: 1 day



Supply Chain Management

Whether you are working in a corporate giant or a small business, globalization has put emphasis on the importance of implementing supply chain management techniques and methods throughout the system. This program will introduce the different aspects of supply chain management and will prepare its audience for future comprehensive studies in the different topics, as well as the professional certification from the American Production and Inventory Control Society (APICS®).

Target Audience:

- Supply chain professionals and engineers.
- Logistics and distribution planners.
- Demand and supply planners.
- Production and inventory planners.

Contents

- Supply chain design and management
- Strategic management of resources
- Master planning of resources
- Supply chain planning and scheduling
- Execution and control of operations
- Logistics and distribution management
- Transportation and logistics network design
- Order and inventory management
- Introduction to supply chain analytics
- Supply chain simulation game

Program duration: 5 days



Supply Chain Management Workshop with Simulation Game

Supply Chain Management is the oversight of suppliers, inventory, information, production, transportation and finances. Supply Chain Management has become a revolution in integrating and connecting this complex process so that the overall flow through the chain is efficient, fast and ultimately a big saver in costs. In today's ever-expanding and global marketplace, the need to implement a successful supply chain is of paramount importance in remaining strategically competitive. This unique Supply Chain Management course identifies the individual workings and dynamics along the supply chain. The chain involves the flow of materials, from the acquisition of raw materials to the delivery of finished products to the ultimate users.

Target Audience

- People from all disciplines of industry
- Engineers.
- Planners, purchasers, transporters, marketing, forecasters, suppliers.
- Inventory managers, warehouses production managers, warehousing, company representatives.
- Middle and senior management.

Content

- Building a strategic framework in supply chain
- Managing inventories in a supply chain
- Planning demand and supply
- Optimization of the supply chain

Program Duration 5 Days

Warehouse Management, Warehousing Performance Measures, Storage Control & Safety

The Advanced Warehouse Management, Warehousing Performance Measures, Storage Control and Safety training course covers the warehouse operations theories, concepts and operational strategies ensuring the efficient flow of products in and out of the facility, and ensuring orders are fulfilled and products are in stock, but not overstocked. Hence, ensuring profitability and minimizing overhead and labour costs. This training course will also enable delegates to measure warehouse metrics critical for providing team leaders with a clear vision of potential issues and opportunities for improvements. Participants on the Advanced Warehouse Management, Warehousing Performance Measures, Storage Control & Safety training course will develop the following competencies:

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- Evaluating warehousing strategies from a qualitative and quantitative perspective
- Recognizing that the safety of personnel and security of products are the basic building blocks for warehouse operations
- Optimizing warehouse operations and warehouse space availability as impacted by equipment and product flow
- Recognizing better efficiency through warehouse performance measurements

Target Audience

- Warehouse operators
- Operations team leaders
- Logistics and supply chain professionals

Content

- Warehouse operations and logistics best practices
- Optimizing warehouse operations workflows
- Safety and risk management in warehouse operations

- Asset tracking best practices for warehouse operations
- Design criteria for warehouse accreditation

Program Duration 5 Days

Fault Diagnoses in mechanical systems

This training session is designed to help mechanical engineers and technicians to diagnose faults in mechanical systems and make the right decisions in the maintenance and replacement of mechanical parts of rotating machinery. Participants will be able to diagnose the faults in mechanical systems and rotating machinery.

Participant will learn:

1. Fault diagnosis using naked eyes
2. Fault diagnosis using vibration analysis technique including FFT and Wavelet Analysis

Target Audience: Mechanical Engineers and technicians

Contents:

- Importance of maintenance
- Difference between maintenance and repair
- Maintenance philosophies
- Methods of fault diagnosis (vibration analysis, oil analysis, acoustic emission, current analysis, temperature analysis)
- Vibration measurement process and precautions
- Time waveform and FFT technique
- Rotating shaft and big three faults: (unbalance, misalignment, resonance)
- Crack and micro crack detection
- Early detection and fault diagnosis of rolling element bearings
- Fault diagnosis in gears, fans, and vanes
- Pump cavitation
- Mechanical Looseness
- Journal bearing faults: oil whirl and oil whip
- New approaches in fault diagnosis (Wavelet analysis technique)

Program Duration 5 Days

Inspection and Measurements of Machine Elements

This training session is designed to teach mechanical engineers and technicians how to use appropriate precise measuring tools and equipment in inspecting the dimensions and geometry of mechanical parts. Participants will be able to understand the principles of measurements, calibration, fits and tolerances, and basic terminologies of dimensional metrology.

Participant will learn how to:

- Inspect the dimensions and geometry of machine elements
- Apply mechanical and optical techniques for direct, indirect, and comparative measurements
- Use appropriate tools in screw and gear measurements

Target Audience: Mechanical Engineers and technicians

Contents:

- Principles of dimensional metrology and types of measurements
- Basic terminologies
- Simple measuring vs advanced measuring tools
- Measurement of external and internal dimensions for elements such as cylinders, holes, grooves and slots.
- Mechanical and optical techniques in dimensional measurements
- Fits and tolerances
- Calibration methods
- Screw thread feature measurement (base circle, pitch, outside diameter, and flank angle)
- Gear features measurement (gear diameters, tooth thickness, tooth depth, and circular pitch) using appropriate tools and equipment
- Rolling element bearings selection and measurements

Program duration: 5 days

Basics of Metallurgy

The Aim of course is to get engineers acquainted with the fundamentals of metallurgy needed to pursue their job in fields where a minimum understanding of metallurgy is required to interpret and understand basics of materials composition/microstructure/properties relationships of metals and alloys.

Target Audience:

- Engineers of different background
- Quality control staff

Course Content:

- Basic Atomic Structure and Bonding in Metals
- Crystal Structures and Unit Cells
- Solid Solutions
- Crystal Defects
- Understanding Phase Diagrams
- Introduction to Steel
- Common Steel Types and Designations
- Alloying Elements in Steel
- Steel Manufacturing Processes
- Role of Heat Treatment
- Mechanical Properties and Testing Physical Properties

Course Duration: 6 days



Heat Treatments of Metals and Alloys

This training session is designed to teach the materials' selection and production engineers the basics of heat treatments of metals and alloys. Choosing the proper material and its heat treatment to get the proper microstructure for achieving the desired properties is the focus of this course. The last day will be a laboratory practical work where the proper material and its heat treatment of some example products will be done. The keys and tricks of different heat treatments processes will be studied.

Target Audience:

Engineers, technicians, and researchers in steel industry, foundries, metals parts production industries. It is useful to maintenance personnel of all industries.

Course Content:

- Heat treatment environment
- Quenching media
- Pre-machining softening
- Hardening
- Case hardening
- Work and age hardening
- Tempering and untempering
- Recovery and recrystallization
- Annealing and stress relief
- CCT and TTT curves
- Special heat treatments

Course Duration: 5 days

Materials Characterization

Participants of this course will learn an overview of the current technologies used for the characterization of materials in industrial applications. They will know the basics a how to characterize different materials and products. They will be able to judge the materials provided or produced can do its function

according to the needed specs and slandered. One day Lab on the practical samples preparation and testing using many of the common materials characterization equipment and facilities will be done in the last day.

Target Audience:

Engineers, chemists, physicists, technicians and researchers in steel, polymer and plastics, chemical and petrochemical, and ceramics industries. It is useful to quality control and purchasing sections' personnel of all industries.

Course Content:

- XRD diffraction
- Metallographic preparation
- OM, SEM, EBSD and TEM testing
- Thermal properties of materials
- Mechanical properties
- Thermal analysis
- Particle size and shape
- FTIR, Raman and UV
- Chemical analysis of materials (OES, XRF, ICP,..)

Course Duration: 4 days

Industrial Manipulators (Robotic Arms)

The course introduces the different types of industrial manipulation used in the production lines in factories doing different functions such as; such as palletizing, arc welding, painting, assembling, ..., etc. The course covers the various configurations and designs of the manipulators, position and velocity kinematics, dynamics, MATLAB Robotics toolbox, and Universal Robot UR5 training and acquiring a certificate from Universal Robot Academy.

Duration: 15 hrs

Audience: Production/ Mechanical Design/ Mechatronics/ Robotics Engineers in facilities concerning with mass production and automated manufacturing lines

Hydraulics and Pneumatics System Design

The course gives detailed information about Hydraulics and Pneumatics Systems including hydraulic principles, pumps and valve types, directional and pressure control valve types and functions, how to calculate their size, hydraulic fluid types and selection, and finally simulation and design of pneumatics and hydraulic circuits by using simulation software such as; Festo and Automation Studio. The course also offers a glimpse into integrating electrical circuits and sensors to create an automated system.

Duration: 12 hrs

Audience: Mechanical Engineers in facilities/corporations that apply hydraulic and pneumatic power systems such as; heavy machinery, oil, gas, chemicals pipelines, ..etc

Computer-Aided Design (CAD) & Finite Element Analysis (FEA)

The course provides the essential skills for designing products/components for mechanical systems including part design, assembly of multi-components, sheet metal design, and drafting concepts and principles, besides, applying topology optimization concepts for structural design. Performing stress analysis is crucial in designing a product and knowing principles of FEA is one of the course aims. The training will involve practicing on SOLID EDGE software as well as ANSYS.

Duration: 16 hrs.

Audience: Mechanical Design/ Mechatronics/ Robotics Engineers in facilities concerning designing new products. In addition to, R&D engineers in all production facilities

Industrial Aerodynamics

o Ventilation of Buildings, Vehicular Tunnels, Mining Tunnels, and Railway Tunnels. Design and Performance of Industrial Fans, Ventilators, Ceiling Fans, Centrifugal Fans, and Axial Fans. Aerodynamic Design and Drag Calculation of Road Vehicles. Air Flow in Pipes and Ducts. Aerodynamics of Filters. Aerodynamics of Dehydration.

Target Participants: Home appliances manufacturing companies, Automotive manufacturing Companies

Aerodynamics of Architectural and Urban Systems

o Review of Atmospheric and Climatic Factors. Methods of Flow Representation, Measurement and Visualization. Wind Tunnel Techniques. Rural, Sub-Urban and Urban Systems Characteristics. Aerodynamic Evaluation of Sites. External Flow past Buildings and Complexes of Buildings. Passive Aerodynamic Design Considerations.

Target Participants: Real Estate Developments Companies, Ministry of Housing, Ministry of Environment

Data Acquisition and Measurement

o Signal processing -measuring techniques and digitizing -design of data acquisition systems- Using computers for data acquisition.

Target Participants: R&D centers in companies

Programable Logic Controllers (PLCs) for Industrial Applications

Evolution of programmed logical controllers - internal construction - logical methods use: Ladder logic- sequential logic- gates and timers - Requirements of PLC networks - practical Aerospace applications.

Target Audience: Pharmaceutical and Food Industries.

Duration : 3 days





**SCHOOL of
ELECTRONICS,
COMMUNICATIONS,
AND COMPUTER
ENGINEERING
PROGRAMS**

Radio Resource and Mobility Management of Wireless Communication Systems

Communication Systems

To Have a comprehensive view of the LTE systems and understanding the new trends in LTE and how it is applied in IoT.

Target Audience

- Advanced student
- Fresh graduates, engineers with computer or communications background/experience

Contents

- Introduction
 - The evolutions of the mobile generations.
 - A look at the LTE PHY layer
- Wireless communications basics
- Overview of the channel structure of LTE
- Lab work: MIMO using MATLAB
- Downlink transport channel processing
- Uplink transport channel processing
- PHY layer procedures and scheduling
- Operation of LTE– Data flow, Radio resource management and mobility management
- LTE advanced: main characteristics and concepts
- Lab work: Relaying techniques
- Machine type LTE and NB-LTE
- Lab work: Mini Project

Program duration : 5 days

Collaborative Document Creation and Management

To be familiar with versioning systems (GitHub). Markdown format and cloud shared file systems to create, manage, and modify documents and reports professionally using cloud and smartphones.

Target Audience

- Top management
- Administrative staff

Contents

- Course overview
- Git overview/ Lab
- Git Branches
- Distributed repositories
- Introduction to Markdown/Lab
- Pandoc System
- Writing complex documents
- Cooperative Writing
- Shared file systems
- Writing on smartphones
- Lab / Case Study

Program duration: 3 days



Build Your Own Cloud in 3 Days

Have deep understanding for cloud systems and being familiar with Linux cloud administration, also to be able to deploy an in-house cloud computing system.

Target Audience

- Advanced student/fresh graduates, engineers, technicians with computer or communications background/experience
- Prior knowledge of Linux is preferred

Contents

- Cloud Concepts
 - Types of cloud services IaaS etc. with examples
 - Virtualization concept
 - Operating system overview: kernel, filesystems, processes
 - Cloud architecture overview, case open nebula: compute nodes, controller, data stores, demo.
 - Introduction to Linux
 - Basic commands, file permissions
 - Text editors: emacs, vim, Nano, ...
 - Hands-on/activity: try commands and editor
 - Introduction to Linux - Installation tools - Services: restart, start, status - hands-on/activity
 - Cloud controller - hands-on/activity: run controller.
 - Cloud controller, revisited – one admin account - Change of password - ssh and keygen, keys - hands-on/activity
 - Compute Node - networking: bridges, ips, iptables, gateway, dns, - hands-on/activity
 - Compute Node continued - kvm, libvirt - hands-on/activity: installing compute node
 - Remote VM Access - ssh - vnc - tunnelling –open vpn
 - File systems: filesystem types: journaling filesystems - partitions: fdisk - hands-on
 - Share file systems: nfs - hands-on/activity
 - Data store: - VM images: qcow, raw - data store structure - installations - hands-on/activity
 - Trouble shooting - logs - googling - understanding why it happened: develop
- Program duration 3 days

Computer Vision and Applications Employing Deep Learning

Have deep understanding for Computer Vision Fundamentals and be familiar with Deep learning. To be able to implement the ecosystem of Python, in particular, using the TensorFlow and Keras APIs.

Target Audience

- Top management
- Managers
- Fresh graduates
- Students and graduates with computer or communications background/experience
- Technicians

Contents

- Basics of computer vision: Affine versus projective transformations, pinhole camera, camera calibration, stereo vision (depth from disparity).
 - Review of Image representation (sampling & quantization), color, and image versus video data. Low level image processing (point and region operations),
 - Clustering and image segmentation, types of features and their invariance properties.
 - Template matching vs features matching, pattern recognition concepts (features extraction, features selection, texture, shading, motion, tracking, optical flow.
 - Skills in developing low, medium and high level vision tasks using MATLAB software package.
 - Introduction to the Python programming language: covering the basic syntax, semantics and ecosystem of Python.
 - Introduction to deep learning, in particular convolutional neural networks.
 - Implementing simple vision tasks such as the MNIST.
 - Advanced introduction to deep learning. Implementing more computer vision advanced projects. These projects involve, for example, classification of handwritten digits, object classification, image annotation, etc.
- Program duration 3 days

Artificial Neural Networks: From Biological Neuron to Deep Learning

Understanding what is meant by Non-Algorithmic Problem Solving and the foundation and evolution of the Artificial Neural Networks (ANNs) field also to be able to select, train and validate a Neural Network model in the proper way in terms of hands-on experience using MATLAB scientific package.

Target Audience

- Senior undergraduate and graduate students, scientists, researchers and engineers seeking a sound knowledge about solving Machine Learning problems with ANNs.
- knowledge of MATLAB is preferred

Contents

- Introduction: Biological vs Artificial neuron, McCulloch and Pitts model, Threshold logic, Types of NNs, Supervised vs Unsupervised learning Non-Algorithmic problem solving.
- Basics of optimization, Widrow-Hoff learning rule.
- Lab sessions
- Feedforward network training using the Back Propagation algorithm, model selection, cross validation, regularization and Bias-Variance dilemma
- Dimensionality reduction & PCA, auto-encoders.



Integrated Circuits and Antenna Design at Microwave and Millimeter Wavelengths

- Design antennas at different frequency bands.
- Design power amplifier, and low noise amplifier at millimeter wavelengths
- Explain mm-wave technology features and advantages
- Describe major mmwave antenna applications using mmwave enabling technologies
- Relate mmwave and 5G radio architecture and system implementation and antenna deployments
- Contrast mm wave deployment with Microwave communications deployment
- Learn the key antenna systems engineering concepts related to design, performance, operation and optimization.

Target Audience

- RF and communications engineers, scientists, testing engineers, analysts, engineering managers.
- Antenna technicians and field measurement technicians
- Undergraduates Electronics and Communications graduation project students and project planners.

Contents

- Key benefits of mmW technology and mmWave Transceiver System)
- Simulating electromagnetic wave propagation
- Antenna design at millimeter wavelengths using CST (theory and training)
- Prototype of an antenna design
- Microwave PA circuits design using ADS - theory and training
- Nano Fab techniques
- Antenna design at millimeter wavelengths using CST (Theory and training)
- LNA design using ADS - theory and training
- Fabrication of an antenna in the Nano fab

Program duration: 5 days

Digital Circuits Design Using FPGAs

You will be able to use hardware description languages to design digital hardware and to mention and explain the different stages of the digital VLSI design flow. Additionally, you will point out the subset of a hardware description language that can be synthesized, and design and validate digital hardware that is implemented on an FPGA.

Target Audience

- Graduates of Electronics and Communications or Computer Engineering.

Content

- Design of combinational circuits using Verilog
- Simulation of combinational circuits
- Synthesis of combinational circuits
- Design of sequential circuits using Verilog
- Writing Test Bench and RTL coding guidelines
- Simulation of sequential circuits
- Synthesis of sequential circuits
- Design of memories
- Arithmetic circuit designs
- Place and route
- Implementation on FPGA board

Program Duration 3 Days

Modeling and Simulation

Accept modeling and simulation approach as a decision making tool. Recognize classification and building blocks of simulation models.

Get involved in using a specific modeling and simulation platform to make decision against some real-world problems.

Target Audience

- Graduate students in different engineering fields that use modeling and simulation regime, e.g. Industrial Engineering, Communications Engineering, Mechanical Engineering, etc.
- Field engineers/managers willing to apply a scientific approach for decision making and forecasting in dynamical environments.

Content

- Basic concepts
- Discrete system
- Continuous simulations
- Introduction to plant simulation
- Building a simulation model
- Dealing with randomness

Program Duration 2 Days



Wireless Communications for IoT

Overview

This course introduces the concept of the IoT and its basic applications in industry. The course focuses on the possible communication system to be used in IoT and the advantages and limitations of each. The course has a practical part to introduce how to set an IoT kit and employ it for transmission of sensed data.

Target audience: Engineers in telecom industry and in electronics industry related to IoT.

Contents:

- Overview of IoT and the different industry sectors.
- Sensor technologies.
- Wireless Power transfer for rechargeable operation.
- Wireless Standards for IoT:
- RFID.
- BL and BLE.
- Wi-Fi for IoT.
- Zigbee
- Cellular systems for IoT.
- Low power WAN communication.
- Drones and vehicular communications and their relation to IoT and smart cities.
- Hands on experience with raspberry Pi, sensors and cloud computing.

The content can possibly extend to different networking protocols used in IoT. (+1 day)

Program duration: 6 days



Diagnosis of Power Transformers

This course provides an in-depth understanding of the diagnostic techniques used for assessing the condition of power transformers. Participants will learn about various diagnostic methods, tools, and technologies to effectively evaluate transformer health and performance.

Target Audience:

Electrical Engineers, Technicians, Research and Development Professionals, Senior Undergraduate, Graduates with Electrical Power Background.

Contents:

Introduction to power transformers
Diagnosis overview and importance
Electrical diagnostic methods
Dissolved Gas Analysis (DGA)
Moisture measurement techniques
Future trends in transformer diagnostics

Program Duration: 3 days

Machine Drive and Control

This course is designed to benefit both interesting to the field of electrical rotating machines and drives, as well as those seeking a refresher with insights from real-world designs and practical applications. It will be especially valuable for professionals working in areas such as:

- Appliance drives
- Cranes and elevators
- Precision motion control
- Renewable and alternative energy
- Electric and hybrid-electric vehicles
- Autonomous vehicle control
- Aerospace, marine, and military vehicles

Target Audience:

Electrical Engineers, Technicians, Research and Development Professionals, Senior Undergraduate, Graduates with Electrical Power Background.

Contents:

- Induction Motors: Steady State
- Induction machine types: wound rotor, "squirrel cage" rotor
 - Circuit models
 - Concept of slip
 - Torque-speed curves
- Converter Power Electronics: Basic Theory, Devices
- Review of circuit fundamentals
 - Basic converters
 - Conversion stages
 - Device characteristics and capabilities
- AC Inverter Basics: VSI, CSI, Modulation
- Basic inverter system
 - Voltage source inverter (VSI)
 - Current source inverter (CSI)
 - Modulation techniques
 - Pulse width modulation (PWM)
 - Practical considerations
- Adjustable Speed Drives: Volts/Hz Control
- Concepts of constant flux and torque
 - Operation at constant torque or power
 - Low speed operation
 - Basic Volts-per-Hertz system
 - Drive limitations

Duration: 5 days

Photovoltaic Energy Systems

This workshop will cover the following points:

- Deep understanding of different PV systems, both islanding and grid connected
- Understanding the design process of different PV systems for both islanding and grid connected
- Types of Converters used in PV systems
- How to select suitable converters for your PV systems
- Installation standards and cautions
- safety requirements for system and operators
- System maintenance and cost effective operations
- Battery system design for islanded PV systems

Target Audience:

- Production planning and control engineers.
- Process planning and control engineers.
- Production managers.
- Maintenance Engineers

Course Contents:

- Principle of operation of PV system
- PV system mounting
- Maximum power extraction of PV systems
- Islanded PV system
- Grid connected PV system
- DC-DC converter operation
- DC-AC converter operation
- PV battery system
- Islanded and grid connected PV system design
- Safety and troubleshooting

Course Duration: 3 days

Basics of Smart Grid

The spread of renewable energy sources leads the transformation from centralized to distributed energy resources. This transformation is facing new challenges for metering, pricing, communication, and distribution. Basically, the following points will be covered in this workshop:

- Renewable Energy generation
- Energy distribution networks
- communication technologies
- Energy sustainability
- Smart micro grids
- Smart metering and home automation
- E-mobility
- Information technologies

Target Audience:

- Fresh graduate engineers
- planning engineers
- researchers

Course Contents:

- what is Smart Grids
- Types of Smart Metering and Sensing used in smart grids
- Fundamental of Smart Grid Operation
- Constructions of DC micro grids
- Construction of AC and hybrid micro grids
- The usage of Information Technologies in Smart Grids
- The need for E-Mobility
- Future of Smart Grid and Challenges

Course Duration: 3 days

Electric Vehicles Utilizations

This course aims to cover the recent advancements in charging strategies and charging coordination for Plug-in Electric Vehicles (PEVs) in smart grids and addresses different V2G optimization techniques and approaches and the associated advantages and challenges of PEV.

The main outcomes of this course are:

- Understand the vehicle to grid (V2G) concept.
- Understand the V2G ancillary services
- Know the V2G advantages, challenges, and policy options.
- know the battery choices

Target Audience:

- Fresh graduate engineer
- Maintenance and operation engineers
- Site managers
- Postgraduate researchers

Course Contents:

- Vehicle to grid concept
- V2G advantages, challenges, and policy options.
- Charging Infrastructure for Plug-in Electric Vehicle (PEVs).
- Battery choice for new-generation electric vehicles.
- PEV charging strategies
- Battery charger with grid-to-vehicle (G2V), vehicle-to-grid (V2G) and vehicle-to-home technologies.
- Renewable energy based charging station for V2G application in smart grids.
- Wireless charging systems for EVs.
- V2G ancillary services.
- Charging coordination paradigms of PEVs.

Course Duration: 5 days

Advanced Power Electronics

The course provides the fundamentals for understanding the main aspects of power electronics devices, topologies and their modulation techniques for renewable energy and smart grid. At the end of the course students are able to understand the main technical problems relevant to the selection of power converter topologies for renewable energy and smart grid applications, selection of electronic devices and their impact on the operation and performance of the designed converter, thermal and packaging technologies for these converters.

By joining this course you will learn the following point:

- Explain the basic operation of different converters used in smart grid
- Select appropriate modulation schemes for each converter topology
- Design system, component or process to meet desired needs within realistic constraints

Target Audience:

- Fresh Graduates
- Master and PHD student
- Planning engineer
- Operation and maintenance engineers

Course Contents:

- Introduction to Power Electronics
- Silicon Power Electronic Semiconductors
- Advanced Power Devices (SIC, GAN ...etc.).
- Practical issues about power semiconductor devices
- Gate driver circuits
- Fundamental Converters
- Multi-level Converters
- Z-source Converters
- Resonant Converters
- Modulation Techniques for Power Converters

Course Duration: 5 days

**SCHOOL of
ENERGY
RESOURCES,
ENVIRONMENTAL,
and CHEMICAL &
PETROCHEMICAL
ENGINEERING
PROGRAMS**

Environment and Sustainable Development

This training is designed to raise awareness towards environment and sustainable development. It Promotes the development of the knowledge, skills, understanding values and action required to create sustainable industry, which ensures environmental protection and conservation.

Target Audience: Industrial employees in all sectors and levels.

Content

- Health and environment in sustainable development.
- Climate change and sustainable development
- Environmental Management System
- Environmental Impact Assessment
- Clean production technology
- Environmental laws

Program duration: 3 days

Advanced Wastewater treatment

Participants will be able to understand the practical design, operation and monitoring of wastewater treatment systems, learn the purpose principles of operation and limitations of different treatment technologies, understand how the nature of wastewater stream change the process selection, and learn the design principal for each advanced treatment technology.

Target Audience : All engineers and multidisciplinary that are related to wastewater treatment including scientists and agriculturalists.

Content

- Introduction and basics of wastewater treatment
- Mechanical, physical and chemical processes for wastewater treatment.
- Biological processes for wastewater treatment "aerobic and anaerobic processes".
- Advanced techniques for wastewater treatment "membrane processes, electro dialysis, RO, ion exchange".
- Polishing processes and solid waste handling.

Duration: 3 days

Thermal Desalination Processes & Technologies

This short training course is designed to help engineers (mechanical, chemical, nuclear, ..etc.) to understand theoretical and practical aspects of seawater/brackish water desalination processes and technologies. The emphasis is on the thermal desalination to produce distilled and potable water; in addition to carrying-out basic process calculations and operational performance parameters.

Target Audience: Engineers (mechanical, chemical, nuclear, ..etc.)

Contents

- Introduction to desalination processes
- Multi-Stage Flash (MSF) Technology
- MSF performance and process design calculations
- Multi-Effect Distillation (MED) and Vapor Compression Technology
- MED performance and process design calculations
- Solar Desalination Systems
- Nuclear – Desalination

Program duration: 3 days



Energy audit and management

Rapid increase of energy consumption represents a pressure on the world energy conserve and results in a shortage of the required energy and rise the energy Tarif and energy crisis. One of the simplest and lowest cost of the energy crisis solution is the auditing and management of the energy consumption. The advantages of this solution are that it is easily applied for any building or society consumes energy. Moreover, this solution can be applied on energy consumption type, electricity, gas, fuel, etc. and for any energy consumers, HVAC, machines, factories, lightings, etc. Besides, the energy management solution considers reduction of the negative impact on the environmental with cost analysis.

Target Audience:

- Society top managements.
- Society engineers.
- Society workers.
- Society designers and planners.
- All society energy consumers

Content

- Energy consumption and analyses techniques
- Energy audit and Survey
- Energy management projects
- Project investment appraisal
- Reduction of energy consumption techniques.
- Energy Monitoring, Targeting and Waste Avoidance
- Wast heat recovery
- Energy efficient buildings
- Energy Efficient of HVAC system
- Energy Efficient Electrical Services
- Cost effective energy management techniques.
- Case studies and projects.

Program duration: 5 days.



Energy system design and technology

Energy System Design (ESD) enables customized energy system optimization for economically viable steps toward decarbonization. The course covers Assessment of current and potential future energy systems, covering resources, extraction, conversion, and end-use, with emphasis on meeting regional and global energy needs. It covers , financial analysis of designed energy system. Performance of actual and planned energy system, life cycle cost calculation, transport and reaction engineering considerations for energy capture, extraction and conversion described within a system framework that aids in evaluation and analysis of sustainable energy technology options in the context of political, social, economic, and environmental goals.

Target Audience:

- Society top managements.
- Society engineers.
- Society energy consumers
- Energy system sizing
- Industrial society engineers

Contents

- Available energy resources
- Energy system components selection
- Energy system design
- Energy system sizing
- Energy system installation
- PVs design, selection and installation.
- Energy output utilization and storage
- Transformation to renewable Energy techniques
- Energy system for hydrogen production and storage

Program duration: 3 days



Solid Waste Management

Waste quantities and characteristics, storage and collection, materials recovery and recycling, disposal and treatment, biomedical waste, hazardous waste, waste from electrical and electronic equipment, wastes from industrial and commercial activities, health and safety issues, environmental issues, the problem of SW causes and impacts in Egypt, environmental laws.

Course Duration: 5 days

Estimation of Carbon Foot-Print for Businesses

The course covers some important topics regarding the estimation of Carbon Footprint for Businesses". This course starts with an overview of the impacts of climate change and the global conventions addressing them. It will guide you through creating carbon footprint reports and calculating a company's carbon footprint, including all emission scopes. Additionally, detailed information about greenhouse gas emissions and air pollutants, and their roles in the carbon footprint. The course also covers sector-specific footprints, such as those from solid waste and wastewater treatment plants. Moreover, sustainable city planning and methods for reducing the carbon footprint in the construction sector will be included.

Target Audience:

- Environmental Managers and Sustainability Officers who are responsible for overseeing and implementing sustainability initiatives within their organizations.

- Operations and Facility Managers who manage day-to-day operations and can influence the reduction of carbon emissions through efficient practices.

- Government Officials in Ministry of Environment who are responsible for the implementation of environmental policies and standards.

- Industrial Engineers who are involved in designing and optimizing production processes to minimize carbon emissions.

Course Contents:

- Introduction about climate change impacts & conventions.

- Carbon footprint reports and calculations of company's carbon footprint "scopes of corporate emissions

- Greenhouse gas emissions and air pollutants.

- Carbon footprint of solid waste sector.

- Carbon footprint of wastewater treatment plants.

Sustainable cities and reduction of carbon footprint in construction sector.

- Case studies for estimating carbon footprint in industrial companies and other sectors.

Course Duration: 14 days



Simulation of Chemical Processes

Using aspen HYSYS and Aspen plus for simulation of chemical processes.

Target Audience:

Engineers from different industrial backgrounds

Contents:

Simulation of different units and equipment
Simulation of multiple equipment
Simulation of chemical Processes

Duration: 3 days

Simulation of Industrial Processes

This comprehensive course offers hands-on experience with advanced simulation software, allowing you to create, analyze, and refine simulations of real-world industrial processes. From manufacturing to logistics, you'll learn how to apply simulation techniques to improve efficiency and drive innovation. Join us and gain the knowledge and skills necessary to excel in this vital field, ensuring you stay ahead of the curve and contribute effectively to your organization's success. Enroll now and take the first step toward becoming a unique professional in industrial process simulation.

Course Contents:

Module 1: Introduction to Process Simulation.

Module 2: Fundamentals of Aspen HYSYS.

Module 3: Advanced Simulation Techniques in HYSYS.

Module 4: Introduction to Aspen Plus.

Module 5: Advanced Modeling in Aspen Plus.

Course Duration: 5 days



Clean Production Strategies and Methods of Implementation

Cleaner production (CP) is the continuous application of an integrated preventive environmental strategy applied to processes, products and services to increase efficiency and reduce risk. CP should be applied in every industry and technology. This course will include the strategies and steps to have a cleaner production facility and how to achieve its goals for the optimum process operation and to reduce operational cost and improve the profit.

Target Audience:

- Graduates from any engineering discipline especially chemical, mechanical, environmental, energy, materials, mining and others
- Technicians in chemical, food, pharmaceutical and petrochemicals plants
- Quality assurance engineers in all industry fields
- Water, air and solid treatments engineers
- Decision makers, admins and engineers

Contents:

- Introduction to Cleaner Production includes
- Industrial Impacts on the Environment
- Development of Pollution Abatement Methods
- Cleaner Production Assessment (Cleaner Production Assessment Methodologies and planning)
- Tracking Environmental Performance
- Energy and Water Conservation
- Water, Air and waste Pollution Reduction
- Green Engineering (green design and strategies for green engineering)
- Green Chemistry and its methodologies
- Promoting Cleaner Production
- Policy Instruments to Promote Cleaner Production (policy framework and legislation)
- Stakeholder Involvement (production chain stakeholders)
- The Barriers to CP Implementation (main obstacle for implementation)
- Links between Cleaner Production and Other Tools.
- A Cleaner Production Practices (some industries will be selected for applications)

Duration: 3 days



**BASIC AND
APPLIED SCIENCE
PROGRAMS**

Management and Emission Control from Industrial organizations

This Training covers design, operation, testing and troubleshooting air pollution control systems to control particulates, organic vapors, PFAS/PFOS, dioxins, acid gases, aerosols, metals, NO, SO₂, SO₃/H₂SO₄ and CO. The interactions between the front-end process and the back-end APC are covered in detail. Controls include cyclones, baghouses, venturi scrubbers, wet and dry acid gas absorbers, oxidizers, carbon adsorbers, ESPs, and SCR/SNCR for NO_x. Design principals are provided for sizing components. Troubleshooting of systems is provided, along with input on how to design components to avoid outages and failures.

Target Audience: Industrial organizations

Duration: 02 Months

Power to X

This Training covers the most important technical and economic aspects of PtX applications such as hydrogen, heat pump technology, and e-mobility. Key PtX terminology, the current economic context, and recent developments of PtX are explained. Participants will learn about energy storage and artificial intelligence in the energy sector as well as about which set of parameters are used to assess the bankability of energy projects and understand a banker's perspective of risks. A calculation exercise on green hydrogen generation cost is part of the training

Target Audience: Petroleum Companies

Duration: 02 Months

Implementation of Modern Techniques of Biotechnology and Medicinal Chemistry in Pharmaceutical Industry in Egypt

Biotechnology refers to the application of biological systems, living organisms, or their derivatives in making or modifying products or processes for specific use. Biotechnology is used in various fields including agriculture, food science, and pharmaceuticals. Pharmaceutical companies use biotechnology for manufacturing drugs, pharmacogenomics, gene therapy, genetic testing and eliminating microbial contaminants from pharmaceutical products.

Target Audience: Individuals responsible for medical/pharmaceutical industry

Content

- Implementation of modern synthetic techniques in the local API production and its role in the control of HCV in Egypt.
- Success story of production of TC99 and I131 radiopharmaceuticals in Egypt.
- QMS and GMP in the pharmaceutical industry.
- EHS in pharmaceutical industries.
- Fermentation.
- Recombinant protein refolding, purification and characterization.
- DNA/RNA/Protein structure, an overview.
- From RNA to DNA, reverse transcriptase
- Polymerase Chain Reaction (PCR), Basic principles and different types.
- Applications of PCR in the pharmaceutical industry.
- Applications of molecular techniques in products.
- Products made by biotechnology include, antibodies, proteins, and recombinant DNA.

Program duration: 2 Days

Industrial Hygiene Workshop

HACCP training courses will teach learners about each stage of the HACCP food safety management system, both in principle and practice.

The training is designed to serve two levels:

- Training on industrial hygiene for workers
- Training on industrial hygiene for managers

Upon completion of this training workshop learners will know:

- Food safety management system (ISO 2018/22000)
- Good hygiene practice (GHP)
- Good manufacturing practice (GMP)
- Food hygiene and safety from farm to fork
- Aware of common food pests and how to control them
- The principles of cleaning and sanitation.
- Good storage practice
- Food safety hazards and contamination
- Food standards and legislation
- Stages of the HACCP food safety management system.
- Soft skills

Content

- Protective clothing
- Hand washing
- Personal hygiene
- Sources of contamination
- Illnesses which may affect food safety
- Different parts of the human body in terms of potential sources of bacterial contamination
- Cleaning and sanitation
- Cross contamination
- Avoiding unhygienic practices
- Safe food handling techniques
- Maintaining hygienic staff facilities
- Food safety signage
- Keeping work areas clean

Program Duration 3 Days





**FACULTY of
INTERNATIONAL
BUSINESS &
HUMANITIES
PROGRAMS**

Managerial Communications

Communication skills training course will help managers and supervisors to communicate effectively to a diverse range of personalities in a workplace.

This course is made to provide training on communication skills including applying feedback, listening, and questioning and non-verbal communication techniques. It is an incredibly successful tool for gaining an overall better understanding of your team as a whole, and its individual members.

Target Audience: Managers and employees at all levels

Content

- Communication: meaning and importance
- Communication process
- Types of communications
- Barriers of communications at work
- The Situation-Behavior-Impact (SBI) feedback model
- Effective communications at work

High Performing Teams

The high-performance teams' course is designed to help managers and team leaders develop the knowledge and skills to create and maintain a high-performance team.

Target Audience: project managers, team leaders and managers at all levels

Content:

- Teams vs. groups
- Stages of team formulation process
- Team cohesiveness
- Characteristics of high performing teams
- Accelerating team performance
- Leading high performing teams



Personal Impact Course

This Course is devoted to understanding how you impact others. It includes key elements of our Communication, Presentation, Assertiveness and Influencing programs. It's designed to bring these elements together to give you a real experience of the impact you make and how to choose the impact you want. The emphasis is on creating insight, increasing confidence and raising self-esteem.

Target audience: Managers and employees at all levels

Content

- Making an impact
- Style and strengths
- Feelings
- Personal boundaries
- Assumptions
- Agreement
- First impression
- Persuasion, motivation and inspiration

Business Writing

Organizations spend each year a huge amount of money, time & effort on correcting mistakes which happened due to poor writing. Give yourself, employees & company an edge & manage your resources efficiently by being proactive & learn modern writing skills.

Target Audience: first level managers and executive secretaries

Content:

- Importance of effective business writing
- Types of business writing
- Assessing your writing style
- Successful writing techniques
- Communicating through written materials
- Characteristics of effective written reports.

Management Skills

This session will help you increase your knowledge and awareness of current business situations and economic conditions. Learning should not be limited to the specific industry or to your own geographical location. Globalization has changed the way people and companies do business. This will lead to changes in economic conditions and reforms in the business landscape. As a result, you need to enroll in a management skills training course in order for you to update your knowledge and technical capabilities to adapt well to the changes in the business environment.

Target Audience: Managers at all levels.

Content:

- Challenges facing today's managers
- Essential skills for managerial excellence
- Delegating and empowerment
- Building teams
- Facilitating for success
- Reinforcing and redirecting performance through coaching

Creating a Respectful Workplace

Imagine a workplace culture where leaders, managers and workers consistently engage with each other with respect, admiration and support recognizing that we are all unique individuals, each with the capacity to make a difference and in doing so contribute to the success of the organization. This is a workplace where bullying, harassment and / or discrimination at any level is not tolerated and respectful behavior is the 'norm'.

Target Audience: Managers at all levels and team managers.

Content:

- Importance of building and supporting a positive and productive workplace climate.
- Disrespect and incivility in the workplace
- Ethical vs. unethical behaviors at work
- Role of leaders in creating a healthy workplace
- Strategies for creating a respectful workplace
- How to influence certain behaviors
- Coaching employees for a respectful workplace

Time and Meetings Management

This course will help you learn effective time management skills to manage time more efficiently, including how to plan activities and get tasks done in a smarter manner, both at work and at home. You will learn how to prepare and conduct meetings in the workplace.

Target Audience: Managers and employees at all levels.

Content:

- Time as a depleted source.
- Time wasting
- Time management and work-related stress
- Steps of managing time
- Effective meetings
- How to plan for effective meetings

Supervisory Management

The Supervisory Management Skills Program teaches the essential knowledge, skills, abilities and behaviors to enhance supervisory and management competencies. Participants will learn principles which may be applied in both public and private sector organizations and across all industry sectors.

Target Audience: supervisors, workshop managers

Content:

- The role of supervisors
- Working in a multigenerational environment
- Critical thinking approach for solving workplace problems
- Ethics and values in everyday management practices
- Managing your workload
- Effective supervisor

Strategic Management

Strategic management is an essential function as it charts a course for an organization into the future. It takes into account the current conditions, future predictions and company resources when devising the strategy.

Target Audience: Top management and project managers

Content:

- Strategy and strategic planning
- SWOT analysis
- Types of strategies
- Strategy formulation, implementation and evaluation
- Barriers of strategic planning
- Effective strategic planning



ACCEL, Situational Leadership & 1-Min Manager

This intensive module provides participants with the ultimate management development experience by focusing on five key skills necessary for managerial success:

- accountability
- communication
- collaboration
- engagement
- listening and assessing
- In this module, participants will walk away with the skills to develop their team and improve organizational results:
- Create a culture of accountability.
- Foster trust and relationships between team members, clarify team roles, and encourage cooperation.
- Cultivate a transparent, open, and honest team atmosphere, and build awareness and action toward better employee performance.
- Nurture a psychological commitment to work and positive contributions to personal and company development.
- Enhance emotional intelligence to identify areas of strength and opportunities.

Target Audience

- Individuals in leadership roles, executives.
- Managers at all levels.
- Project managers.
- Team leaders and supervisors.

Content

- Being an accountable manager
- Creating and sustaining teamwork
- Encouraging and leveraging employee motivation
- Effective dialogue in changing environments
- Giving and soliciting feedback
- Developing emotional intelligence

Situational Leadership

Situational Leadership is a practical model; it is the most widely taught leadership model in the world. It teaches leaders to use the appropriate leadership style in response to the needs of the person and the situation. It provides a framework that will allow people to know how and when to deliver the behaviors required to demonstrate successful and effective team leadership with an easy-to-understand approach. In this module, you will:

- Improve communication and become a more trusted and credible leader
- Learn how to use situational leadership to achieve greater productivity by infusing energy, self-reliance and drive within your employees
- Create a collaborative work environment to achieve faster sustainable results
- Avoid the negative outcomes of over supervision and under supervision
- Obtain a critical thinking process for analyzing, diagnosing and acting according to the situation
- Increase your effectiveness in setting goals, providing clear direction, listening, observing, monitoring and giving feedback
- Retain your most talented employees by being more responsive to their development needs
- Target Audience
- Individuals in leadership roles, executives.
- Managers at all levels
- Project managers.
- Team leaders and supervisors.

Content

- Leadership concept and myths
- Leadership drivers
- Leader personality development
- Leading with emotional intelligence
- Situational coaching
- The four leadership styles
- Leader behaviors
- Benefits of situational leadership
- Diagnosis of style
- Competence and commitment model
- Assessing development level
- Goal setting
- Identifying competence and commitment
- matching leadership style to development level
- Leadership and management

The One Minute Manager

One Minute Managers can focus on getting greater results in less time. Simply, they focus on three key elements of management, which are:

- Setting one-minute goals
- Giving one-minute 'praises'
- Providing one-minute 'redirects'

In this module, these three main ideas are discussed; so, after finishing this module, participants will be able to:

- Inspire their teams, bringing out the best in every individual.
- Overcome team challenges in a swift and effective manner.
- Quickly develop effective team goals that inspire employees.
- Praise employees at the appropriate time to help motivate them.
- Deliver negative feedback in a timely manner and with a focus on improvement.
- Keep their teams happy and reduce staff turnaround

Target Audience

- Individuals in leadership roles, executives.
- Managers at all levels.
- Project managers.
- Team leaders and supervisors.

Content

- Influence and Control
- One Minute Managing Overview
- One Minute Goal Setting
- One Minute Praises
- One Minute Redirect
- Skills of the One Minute Manager

Time and Stress Management

In today's fast-moving world, time management has become an essential tool of highly effective professionals. Although, time management may be seen by many as a skill, yet, there are some essential tools and techniques that would improve the overall performance significantly. On another hand, given the challenging nature of the business environment, it is essential to understand how work stress is developed and how it can be mitigated and managed. This program will help the participants understand the nature of work stress, learn how to help yourself reduce work stress, understand concepts of time management, and get a hands-on experience with time management tools and techniques. Target Audience: Professionals from all levels of management and operations.

- Introduction to work stress
- Work patterns and personal habits
- Stress management
- Identification of time wasters
- Effective time management tools and techniques
- Developing concentration and focus
- Meeting management
- Managing procrastination

Program duration: 3 days

Job Analysis and Evaluation

Any HR professional would agree that the job description is a fundamental tool omnipresent in every HR process. In this session, you will learn how to conduct a thorough job analysis in order to write a comprehensive job description focused on the key result areas of the job. You will also realize that organizations pay for jobs not individuals; that is why, as an HR professional you have to use job descriptions to evaluate jobs objectively and determine their relative values to the organization.

Target Audience: HRM managers and HRM specialists

Content:

- Importance and uses of job analysis
- Conducting job analysis
- Writing job description
- Overview of job evaluation
- Job evaluation methods
- Administrative and maintenance related issues



Performance Appraisal

A comprehensive 5-day performance appraisal course for managers, to improve appraisers' performance management techniques.

Target Audience: HRM managers, HRM specialists, managers in all levels

Content:

- Principles of effective appraisal
- Setting SMART objectives
- The appraisal meeting
- Appraisal skills
- Performance appraisal methods
- Participating the key skills in conducting the appraisal process
- Performance appraisal documentation and follow-up
- Review of learning and action planning



Disciplinary and Grievance Issues in the Workplace

Disciplinary and Grievance management training course equips participants with legal, technical and practical guidance. Disciplinary situations are breaches in standards of conduct or willful under-performance. Grievances can be raised by employees at any time in relation to issues, big or small, concerning a colleague, manager or organizational policies, practices and procedures.

Target Audience:

- Middle managers, top management, HRM managers and HRM specialists.
- Supervisors or managers with responsibility for handling or participating in disciplinary or grievance procedures, whether this relates to the informal management of employees, conducting investigations or controlling formal hearing or appeal meeting stages.

Content:

- Disciplinary and grievance issues and the legal context
- Equality in the workplace
- Whether to address issues informally or formally
- Suspending employees
- Carrying out an investigation, disciplinary and appeal hearings
- Conducting a formal disciplinary hearing (role play)
- Making a formal HR decision
- Handling grievance hearings and appeals

Managing Employee Relations

This course is designed to shed light on all the activities under the employee relations' function. From administration to grievance resolution, the course material and resources ensure that attendees improve their awareness and engagement level within the employee relations functions of their organization.

Target Audience: Middle managers, supervisors and workshop managers. Employees in the functions of employee relations, HR or personnel and administration who are responsible for providing support services to internal customers within the organization.

Content:

- Employee discipline and grievances
- Conflict management and resolution
- Engaging and motivating employees
- Interpersonal negotiating.
- Leading organization change
- Employment Law for supervisors

Managing Organizational Restructure and Redundancy

This session is providing managers with knowledge and best practice guidance to shape their approach when managing organizational restructure and redundancy.

Target Audience: Top and middle managers.

Content:

- Redundancy and restructure
- The legal context of dismissing an employee on grounds of redundancy
- Employer obligations and employee entitlements throughout a redundancy process
- How to devise a suitable approach and framework when undertaking an organizational restructure
- Methods of assessment
- Common practical challenges to managing restructures
- How to communicate with your employees during a restructure



Effective Teamwork

Businesses rely on teams to meet the increasingly complex duties of day-to-day work. It is essential that every professional understands what is expected from him/her as a team member or a team leader to guarantee the overall efficiency and effectiveness of the team. In this program teamwork essentials will be explained through a series of sessions and workshops as well as team activities.

Target Audience: Professionals from all levels of management and operations.

Contents

- Importance of teamwork at the workplace
- Team development stages
- Team communication
- Resolving conflict
- Meeting management
- Team decision making
- Effective leadership
- Team building activities

Program duration: 3 days



Change Management

It is a highly dynamic environment regardless of where you operate; to survive such a dynamic world you need to change yourself to take most of the change into your benefits. Pave the way for the change for your employees.

By the end of this workshop participants will be able to:

- Understand change for a smoother implementation
- Use a scientific approach to change management to minimize risk
- Motivate employees to keep performing the new change

Contents:

- Change nature & types
- Understand change
- Change models: Lewin's change model, Kotter's process ...etc.
- Bridges' psychological transition model
- Reasons for change resistance
- Managing resistance
- Change management process
- Motivation & change management
- Motivation theories and practices
- Stress and change management
- Stress management: tools and techniques
- Various applications through games, case studies ...etc.

Audience: Managers, Senior Managers, HR Professionals & Decision Makers.

Duration: 12 hours

The Art of Coaching

Being a leader is far more than just giving orders; it needs you to support your team to reach an excellent performance, smoothly and aligned with the overall organization goals. Furthermore, your role dictates you to teach, delegate, and empower others to support their future growth.

Content

- Coaching nature
- Coaching versus training and mentoring
- Understand your employee
- Coaching model
- Characteristics of an effective coach
- Coaching and questioning techniques
- Coaching techniques
- Applying of coaching model through cases studies and roles plays

Target Audience: Supervisors, Team leaders, Managers & HR Professionals



Employee Performance Management

Performance Management is an essential component of employee development. There is a clear and immediate correlation between using performance management programs and improved business and organizational results. Setting goals and objectives to aim for, will give both supervisors and employees a focus, and is one of the key aspects to meeting overall company objectives. Performance Management is a continuous process where managers and employees work together to plan, monitor, and review an employee's work objectives or goals and his or her overall contribution to the organization.

Contents

- Performance management versus performance appraisal
- Process of performance management
- Employee performance motives
- Effective performance management
- Employee performance planning: process, tools.... etc.
- Setting SMART objectives with your employee
- Employee performance coaching and mentoring
- Employee performance appraisal: process, tools,etc.
- Appraisal interview
- Performance appraisal errors
- Employee development
- Performance management checklists

Audience : HR professionals and line managers

Report writing

Out of all business documents, reports and proposals are the most important documents. Moreover, the receivers of both documents are crucially important. Give positive impressions while delivering your information and provide documents that will be read and acted upon your writing skills need to be presenting information in formal, informal, and proposal styles

Contents

- The stages of report writing (investigating, planning, writing, and revising)
- Report structure
- Data organization and analysis
- Data interpretation approaches
- Illustration tools: tables, photos, charts, and graphs
- Report formatting
- Table of content development
- The parts of a proposal
- Persuasion, designing a message, and tough questions
- Appendices

Audience : All Employees who use reports & proposals

Email etiquette and writing

Due to globalization; companies are using emails as an essential medium for communication for its easiness & promptness. However, some emails due to poor writing or poor formatting might project the wrong image for your receivers. Manage your email writing for the best professional image.

Contents

- Communication basics & process
- Four C's of writing
- Writing Process:
 - Planning to write
 - Organizing your thoughts
- Email writing structure: opening, body and closing
- Email Formatting
- Writing the first draft
- Editing & proofreading
- Effective Email Writing tips
- Mail merge function and importance
- Various applications through games, case studies & writing sessions

Audience: All employees across different levels, functions & departments



The art of KPIs

- Strategy and performance management terminology review
- Challenges in performance measurement
- Key performance indicators concept map
- KPI historical overview and current state of practice
- Types of KPIs, measures and metrics
- Levels of KPIs: strategic, business and functional
- Efficiency KPIs: when to use and their formula
- KPI documentation form design
- Management theory informing the value added by using KPIs

Audience This course is designed for those who are involved in influencing, and formulating organizational/ departmental objectives; operational managers, senior professionals, and analysts from both delivery and support functions such as Finance, Accounting, Project Management, Human Resources, Sales, Marketing, Logistics and Quality Control.

Duration: 15 Hours

Negotiation and Persuasion Skills

Nearly everything in the world is negotiable but it depends on how to reach your organization's objectives with the least cost depends on how good you are in negotiations. Upgrade your negotiation tactics & skills.

Contents

- Negotiation: importance and types
- Styles
- Negotiation process: planning, bargaining, settlement & review
- Negotiation principles: BATNA, ZOPA, and WAP
- Value creation through trade
- Negotiation pillars
- Negotiation Tactics
- Negotiating with difficult people
- Activities, games, & role-plays

Audience : All professionals who encounter negotiations



Business Continuity (Disaster Management)

In this disaster recovery and business continuity course, you will gain the skills to identify mission-critical continuity needs, define sources of risk, create an incident response team charter, implement a Business Continuity Management System (BCMS), and improve organizational resilience. Learn how to build a disaster recovery plan and implement a BCMS to ensure your organization is protected from the constant risk of business disruptions caused by internal and external threats.

Content:

- Analyzing The Organizational Context
- Disaster versus risk
- Disaster management versus business continuity
- Disaster identification
- Business impact analysis
- Business continuity management process
- Documenting Business Continuity Requirements
- KPIs of business continuity
- Incident management
- Emergency management

Duration: 04 days

Personal Selling for Beginner Salesperson

Are you thinking of getting into sales? Perhaps you have just started, and you would like some guidance on sales and what it is all about? Or, maybe you are coming back to sales after a very long time away and you need a refresher? If this sounds like the situation you face, you may find this course to be just what you need to help you establish yourself as the next 'Super Seller' in your sales role.

Target Audience: Salespersons. Marketing specialists.

Content:

- Understanding marketing for salesperson
- Personal selling as marketing promotion tool.
- Why is sales important?
- The sales process
- Building long-term relationships
- Enhancing your career as a salesperson



Customer Types and How to Deal with Them

Customer Types and How to Deal with Them
Customers experience training is crucial to any organization that works with people. Not only does each interaction between employee and customer affect the number of customers retained, but employees with effective customer service skills feel a greater sense of value and commitment to their job. These skills make a positive impression in the minds of current and future customers, as well as the employees who utilize them.

Target Audience: Marketing managers, marketing specialists, salespersons

Content:

- Understanding why difficult situations arise and why customers demand.
 - Building rapport and listening.
 - The filter: keep the gunk out of the relationships
 - Dealing with unreasonable customers.
 - Just keep swimming: managing stress
- Maintenance: how to keep and retain your customers.

International B2B Marketing

This course offers a unique perspective into the differentiating aspects of business to business (B2B) marketing that can be contrasted to traditional business to consumer (B2C) marketing that is the subject of most other marketing curricula. In this course there is an emphasis on how companies can expand by cross-country and cross-industry innovation.

Target Audience: Marketing managers, salespersons, marketing coordinators

Content:

- International Business
- International Marketing
- What is B2B Marketing?
- B2B Marketing Mix
- B2B Cross Country and Cross Industry Growth



Serving Different Types of Customers

This session will help participants identify different behavioral styles of customers, isolate their own preferred style, and learn how to communicate appropriately with each customer's behavioral pattern. Once they learn to that, they will find it easier to establish trust, credibility, and rapport with their customers.

Target audience: Salespersons, marketing managers, marketing specialists and all of those involved in serving customers.

Content:

- Understanding characteristics, strengths and weaknesses of different behavioral styles
 - Utilizing techniques to effectively deal with different types of customers
 - Adapting participant's own communication style
 - Building relationships on the foundation of trust, credibility, and honesty
 - Using the information gained in this seminar to build stronger relationships with customers
- Action plans: what will I do differently to communicate even more effectively



Professional Skills for International Business

This course provides insight into the key professional skills needed by managers at all levels of an organization. You'll learn key skills such as how to make a positive first impression; how to become a role model at work; effective time and resource management; and networking.

Target audience: Marketing managers, marketing specialists, salespersons

Content:

- Creating a Positive First Impression
- Becoming a Role Model in the Workplace
- Effective Time and Resource Management
- Networking
- Cultural diversity
- Dealing with diverse cultures

Shaping Your Professional Brand

You've thought about who you are and how you want your career to be. You have some soft skills to deal with situations that could cause problems. What about your team? How do you build functional and constructive professional relationships? How can you add value? What do employers look for when they are promoting?

Target Audience: salespersons, PR specialists, front managers

Content:

- Being valued at work
- Employment skills
- Likability matters
- Cognitive biases and errors at work
- When Things Go Wrong

Communication Skills in Customer Service

Communication skills are vital to quality customer service. The sessions in this course are designed to help your employees improve their communication skills and enhance the service they provide your customers.

Target Audience: Marketing managers, marketing specialists, salespersons and all employees involved in serving customers (beneficiaries)

Content:

- Emotional Intelligence.
 - Good Communication.
 - Eye- to- eye service: connecting to the person
 - Good impression and the cost of negative experience.
 - Fully wired: talking on the telephone
- The write thing: emailing strategies

Marketing Research

Gain the tools and techniques to translate a decision problem into a research question in the Market Research module. Learn how to design a research plan, analyze the data gathered and accurately interpret and communicate survey reports, translating the results into practical recommendations.

Target Audience: Marketing research managers, marketing research, marketing specialists.

Content:

- Defining marketing research and its purposes.
- Marketing research process.
- Different types of research
- Marketing research services
- Syndicated services
- Standardized services
- Customized services
- Two types of data
- Data collection methods
- Data analysis
- Final report

Introducing Digital Marketing

This Digital Marketing Training Program provides a detailed understanding about Digital Marketing concepts, strategies and implementation, including planning a website, website promotion, email and Search Engine Optimization (SEO) campaigns, Pay Per Click (PPC) campaigns and integrating digital marketing with traditional marketing.

Target Audience: Marketing managers, Marketing specialists, salespersons.

Content:

- Understanding the definitions of digital marketing and its impact on business
- Building customer relationships online and permission marketing
- Planning, Strategy and Testing
- Social Media Marketing
- Email Marketing
- Search Engine Marketing: SEO and PPC defined
- Optimizing your digital marketing: web analytic, tracking and measurement



Marketing Strategy and Planning

Develop the skills and confidence to plan, create and deliver marketing strategies that align with business objectives and make the most of the channels your customers have adopted.

Target Audience:

Marketing managers, marketing specialists, project managers.

Strategic planners and others who must manage in the strategic planning process for a department or organization, as well as those who would like to become an internal or independent strategic planning facilitator.

Content:

- What is Marketing Planning
- External Analysis/ Situational Analysis
- Internal Analysis
- Objective Setting
- Marketing Strategies
- STP (Segmentation, Targeting & Positioning)
- Marketing Mix
- Implementation of Marketing Plan
- Control of marketing plan



Consumer Behavior

Client behavior is a truly vital aspect of marketing as it reflects consumer reasons and motives – how and why people make decisions. Mastery in understanding consumer behavior provides the ability to build and adjust marketing campaigns to meet customer demands. This short course teaches you how customers make decisions, what can influence such decisions and how you can understand, predict and impact those decisions. The modern business environment is rapidly reshaping, and this course will ensure you are skilled in managing such challenges.

Target Audience: Marketing managers, marketing specialists, PR officers and salespersons.

Content:

- What is the importance of studying consumer behavior? Defining consumer behavior-The nature of consumer behavior
- Placement: what is perception-interpretation -product placement-marketing to the five senses.
- Attitude: defining attitude- theory of attitudes- how to change attitude
- Culture: defining culture -the components of culture-culture & time-cultural mistakes.
- Motivation: definition- types- approaches
- Self-concept: definition- dimensions-the extended self.
- Peer pressure & body image: how they know about us - decision making

Marketing in a Digital World

This course examines how digital tools, such as the Internet, smartphones, and 3D printing, are revolutionizing the world of marketing by shifting the balance of power from firms to consumers. Marketing in a Digital World is one of the most popular courses you can learn.

Target Audience: Marketing managers, marketing specialists, salespersons.

Content:

- Challenges of the digital era.
- Digital marketing
- Digital tools for developing innovative new products
- Digital tools for persuading customers to buy your products
- Digital tools for effectively distributing your products
- Digital tools for setting the right prices for your products
- Digital tools of promoting your products

Content Marketing Strategy

Content

- Create a long-term content plan that aligns with your business goals
- Build a comprehensive content promotion strategy to increase audience reach and engagement
- How to create, organize, and implement a strategic content marketing plan.
- Analyzing and measuring the effectiveness of content marketing initiatives.
- Techniques for writing engaging and persuasive content.
- A structured approach to content creation.
- Steps to put content marketing strategies into action and develop a personal brand."

Target : • Marketing professionals

- Small business

Duration: 3- 2 days

Customer Relationship Management (CRM)

Content

- Develop tailored strategies that meet the unique needs of various customer segments, fostering satisfaction and loyalty.
- Leverage Salesforce CRM to:
 - Create, modify, and update contact information.
 - Design and send personalized marketing emails.
 - Customize report dashboards to gain insights into sales activities and results.

Target

- Marketing / sales professionals
- Early career personal selling

Duration: 3- 2 days.

Building and Sustaining Competitive Advantage

Content

- Competitive Strategies
- Structural Analysis of Industries and Companies
- "Blue Ocean" approaches
- How value migrates over Time
- the Basis of new Century Strategic Thinking
- The Interface of External and Internal Analysis
- Diagnosing Strategic Problems and Opportunities
- Competitive Advantage in the modern world
- Tools and Techniques in Managing Risk and Uncertainty
- Managing Organizational Change

Target

- Professionals /strategists

Duration: 3- 2 days

Measuring and Evaluating PR

The overarching goal of this course is to update participants' awareness of and skills on the latest developments by delivering guidance on planning and measuring public relations efforts.

Target Audience: PR directors, PR specialists

Content:

- Understand the nature of planning and measurement.
- Set objectives of PR linked to your organization's goals and choose the right measures.
- Know the measurement and evaluation process.
- Understand the standards used for measurement.
- Taking the corrective actions and lessons learnt.

Writing Skills for PR

This Writing Skills for PR workshop explores the principles of effective writing and how they can be used to maximum effect in day-to-day public relations writing tasks.

Target Audience: This course is suitable for practitioners with limited PR experience as well as more experienced professionals looking to enhance their overall writing skills.

Content:

- The key principles of Plain English, including brevity as the prime driver of clarity
- The role of different PR communication tools such as press releases, feature articles, blog posts, briefing documents, online communication, etc.
- Press release writing skills

Crisis Public Relations Management

This training course provides participants with necessary skills needed to deal with crises communications.

Target Audience: PR directors, spokespersons in organizations.

Content:

- Crises: definition, characteristics, causes and types.
- How to prepare for a crisis
- Communicating during a crisis
- Dealing with media during and after the crisis.
- The Internet and crisis public relations management

Public Speaking and Presentation Skills

This course will empower presenters to raise their delivery through professional communication skills. They will learn how to create and deliver powerful, persuasive and memorable presentations.

Target Audience: Professionals who seek to create their record of presentation skills, and who wish to step up their delivery to take on new challenges.

Content:

- Presentation skills.
- The art of storytelling
- Body language for public speaking
- Preparing for hard questions
- Group formats and panel discussions

The Art and Science of Relationships Understanding Human Needs

This course will provide participants with everyday relationships and provides advanced concepts for participants who work in the fields of PR, social work and health care.

Target Audience: PR specialists, salespersons, health care providers and social workers

Content:

- Relationships in our lives
- Social exchange
- Managing differences, and responsive assertiveness
- Communication
- Building relationships that work for you

Strategic Public Relations Management

This course has been designed to give a good understanding of Public Relations (PR). Part of the strategic corporate image, successful PR campaigns will drive external interest in organization activities. During this course, the topics covered will investigate PR and how it can be used as an integral part of company promotion using media operations. Critical PR issues that can occur will also be addressed, and the roles of PR personnel will be outlined and defined.

Target Audience: PR Directors, senior executives and anyone else with a need to understand public relations strategy.

Content:

- PR as part of the 'marketing mix'
- Identifying the key components of a PR Strategy
- Where are you now? The PR audit
- Creating clever PR campaigns
- Corporate strategy
- Why good internal communication is essential for successful external communication
- Ways of improving your internal communication
- Communication and presentation
- Writing for the media
- Public Relations Contexts
- PR and Digital Media

Professional Public Relations

This program describes the methods organizations use to communicate effectively with various audiences to build and maintain their image, which enables the organization to function smoothly and productively within society. A public relations professional has a primary responsibility to develop and manage a two-way communication process between many types of organizations, including corporations, nonprofit organizations, government agencies, and their public.

Target Audience: those aiming for a position in Public Relations (PR) or the press department of an organization.

Content:

- Public relations definition, preparation, and process
- Managing public relations process
- Creating and managing public opinion
- Role of ethics in public relations
- Media and community relations
- Employee relations
- Execution and evaluation



Understanding Financial Markets

In this course, you will learn what the main financial markets and their characteristics are as well as how they are linked to the economy. Target Audience: Financial managers, financial analysts,

Content:

- Financial Markets: Key Concepts
- Major Financial Markets
- Other Financial Markets
- Financial Markets and the Economy

Finance for Non-financial Professionals

Impact your financial decisions and learn how to affect the performance of your unit's profitability and of your organization. In this course gain a basic understanding of finance and accounting concepts to drive your organization's growth. Upon completion of this course, you will have gained general financial knowledge and an in-depth understanding of the impact of your decisions outside your functional area.

Target Audience: investors, young entrepreneurs

Content:

- Foundations of Finance and Accounting
- Financial statements
- Costing
- Financial Ratios
- Valuation



Financial Analysis

Understanding how to use financial indicators and benchmarks allows you to allocate resources and evaluate potential projects for maximum return on investment. Financial analysis takes the guesswork out of the planning process and enables you to build and interpret financial projections.

Target Audience: Financial managers, financial analysts, accountants.

Content:

- The Planning Cycle
- Income Statement and Balance Sheet
- Types of financial analysis
- Ratios of financial analysis
- Other tools of financial analysis
- Interpretation of financial analysis

Behavior Investing

Through this course, you will learn how individuals and firms make financial decisions, and how those decisions might deviate from those predicted by traditional financial. We will explore the nature of these biases using insights from psychology and other related fields on how the human mind works. From these biases, you will be able to examine how the insights of behavioral finance complement the traditional finance paradigm.

Target Audience: financial analysts, investors, financial managers.

Content:

- Traditional vs. Behavioral Finance
- Behavioral Biases in Finance: common behavioral biases
- Other different biases such as Conservatism, Ambiguity Aversion, etc.
- Confirmation and Loss aversion

Corporate Finance

Corporate Finance Essentials will enable you to understand key financial issues related to companies, investors, and the interaction between them in the capital markets. By the end of this course you should be able to understand most of what you read in the financial press and use the essential financial vocabulary of companies and finance professionals.

Target Audience: financial managers, financial analysts, financial planners and investors.

Content:

- Finance and Financial Management
- Risk and Return
- Correlation and Diversification
- The CAPM and the Cost of Capital
- How to read and understand financial reports

Feasibility Studies

This course will enable participants to know how to design a feasibility study using different tools and techniques and they will be able to execute a feasibility study in a professional way.

Target Audience: human resources management, accounting and financial managers, business development specialists and those who are interested to know how to implement a feasibility study.

Content:

- Techniques of feasibility studies
- The role of feasibility study in business plans
- Structure of feasibility study
- Executing a feasibility study
- Program duration: 3 days

Investment and Portfolio Analysis

In this course, you will learn about latest investment strategies and performance evaluation. You will start by learning portfolio performance measures and discuss best practices in portfolio performance evaluation. You will explore different evaluation techniques such as style analysis and attribution analysis and apply them to evaluate different investment strategies.

Target Audience: Financial managers, financial specialists, investors, financial analysts.

Content:

- Performance measurement and benchmarking
- Active vs. passive investing: Risk-adjusted return measures
- Performance evaluation: Style analysis and performance attribution
- Investment strategies
- Selecting appropriate investment strategy
- Program duration: 5 days

Portfolio and Risk Management

In this course, you will gain an understanding of the theory underlying optimal portfolio construction, the different ways portfolios are actually built in practice and how to measure and manage the risk of such portfolios.

Target Audience: Financial managers, financial specialists, investors, financial analysts.

Content:

- Key Concepts of portfolio
- Modern Portfolio Theory and Beyond
- Asset Allocation
- Risk Management

Program duration: 5 days

Budget Preparation

This course will enable participants to understand the role and importance of budgets in the management process and will learn how to prepare a budget and use it in the management evaluation process.

Target Audience: accounting professionals, financial professionals, sales and marketing professionals and anyone who wants to understand the budgeting process.

Content:

- Role of budgets in the management process
- Costs related to budgets
- Different types of budgets
- Analysis of variances
- Using budgets to evaluate management performance.

Program duration: 5 days

Accounting for non-accountants

This course will help non-accountants understand the basics of accounting and how to prepare financial statements and reports. Participants will be able to prepare budgets and analyze data for decision making purposes.

Target audience: administrative staff, logistics staff, managers and owners of small business, marketing and sale staff and production staff.

Content:

- Basics of financial accounting
- Preparing financial statements
- Different cost items
- Preparing budgets for decision making purposes

Program duration: 5 days

Mini MBA in Finance

This course will enable participants to know the suitable discount rates to evaluate investment opportunities, identify the different types of financing know how to evaluate financial reports

Target audience: non-financial business professionals, managers working in the financial area and managers in a position to make financing decisions

Content:

- Financial markets
- How to evaluate investment opportunities
- Evaluating annual reports
- Making financing decisions
- Hedging risk

Analytical and Auditing Skills

This course will enable participants to understand the role of data analysis in decision making and to identify the appropriate analytical methods to perform an effective audit

Target Audience: Business analysts, auditors and those involved in quality assurance, marketing personnel and design and production managers.

Content:

- Steps in the analytical process
- Analytical skills
- Ways and methods of quantitative analysis
- Data evaluation
- Role and responsibilities of auditors
- Documenting audit findings

Fraud Prevention and Detection

This course will help participants to understand the different fraud scenarios, understand corruption and the opportunities to commit it and develop a fraud prevention program.

Target Audience: managers who are interested to know more about fraud and how to prevent it, auditors who want to understand fraud prevention and investigation, members of fraud teams and fraud specialists.

Content:

- Types of fraud
- Fraud risks
- Corruption
- Fraud prevention program
- Fraud detection and investigation

Auditing Corporate Governance

This course will help participants to understand the corporate governance activities and be able to audit the risk management process, assist the parties involved in corporate governance in fulfilling their roles and assess sustainability of companies and their environmental governance.

Target audience: senior auditors, audit managers, assurance providers and specialists and managers interested to know more about corporate governance

Content:

- Principles of corporate governance
- Techniques to assess corporate governance
- Governance controls
- Governance risks
- Corporate social responsibility
- Auditing governance activities

Fraud and Forensic Auditing

This course will enable participants to determine the possible signal of frauds and irregularities in the workplace, identify the different risk areas and select the suitable audit procedures that an auditor should follow in a fraud audit.

Target audience: internal auditors, front line staff and management in any level.

Content:

- Understanding and Identification of fraud
- Ways to fight fraud
- Reporting and investigation of fraud
- Role of whistle blowers
- Fraud reports

Internal Audit and Control in the Technological Era

This course will help participants to Understand the internal control environment and internal audit techniques, identify high risk areas and how to build a strong internal control system, and know the impact of IT on the related aspects.

Target Audience: accountants, internal auditors, and those who are involved in the design and management of internal control systems.

Content:

- Overview of internal auditing and its structure
- Evaluating internal control systems
- Internal audit techniques
- Audit evidence

Internal Auditors' Roles and Responsibilities Workshop

understand how internal auditors work and the new consulting and assurance roles expected to be fulfilled by them in the three main areas; risk management, control and governance.

Target audience

Internal auditors in different organizations and institutions

Content

- Internal audit: objectives
- Internal audit: activities
- Internal audit: reporting

Audit Planning and Evidence Collection Workshop

The purpose of this workshop is to help attendees to understand how to prepare audit plans and how to collect and evaluate relevant audit evidence in order to reach a decision.

Target audience

Auditors in different organizations and institutions

Contents

- Audit plans
- Evaluation of internal control
- Collection of evidence

Blockchain Technology

This course will enable participants to learn what blockchain is and its relation to their business and will enable them to analyze the impact of artificial intelligence on their work or area of specialization.

Target Audience: Information technology staff and those who will be affected by new technologies and artificial intelligence, such as those working in finance, HR and communications departments.

Content:

- Changing technology environment
- New technology trends and techniques
- Artificial intelligence and new challenges
- Impact of new technologies on business
- The future of technology environment

Audit Reports: Recent Modifications Workshop

This workshop will focus on the recent modifications in the independent audit reports. Attendees will have some case studies and will learn how to prepare an audit report in different situations.

Target audience

Auditors in different organizations and institutions

Content

- Types of audit reports
- Modifications in the audit report



Data Analysis Techniques

This course will help participants to learn how to analyze numerical data using different techniques and will enable them to present their analysis in a professional way in front of different stakeholders.

Target Audience: Information technology staff and those who are involved in analyzing numerical data.

Content:

- Sources and types of data
- Statistics of data
- Data mining and presentation
- Data prediction

Business Intelligence and Analytics

This course will help participants to use the different business intelligence tools and develop key performance measures that are financial and non-financial. Participants will learn how to predict the future performance and improve their decision-making skills using these tools.

Target Audience: commercial managers, finance strategic business partners, those working in the forecasting and budgeting teams and planning managers.

Content:

- Business models design and uses
- Principles of business intelligence
- Principles of statistical and predictive analysis
- Data presentation tools
- Change in business artificial intelligence environment





ART & DESIGN PROGRAMS

Ramsete III-software solutions for Textile Printing Design-Color Separation

Ramsete III has been thought up and realized as an integrated solution for the computerized development of the designs for the fabric printing. It is composed of various programs, some dedicated to the management of the peripheral unities (scanner, printing, etc.), others to the treatment of the image according to the demands of the various cycles of the production, such as creation, correction, film separation, colorway. It is able to perform more operations contemporarily reducing accordingly the times of elaboration of the design. Effective memory management and the technique of compression of the image complete the system, allowing easily to elaborate designs of great dimensions. The software is optimized for both traditional screen printing and modern digital printing, making it versatile for various textile production processes. Ramsete III is highly effective for textile design studios, print production facilities, and industrial applications requiring efficient, accurate, and scalable design workflows

Content:

- Design Creation and Editing: creating and modifying textile designs to correspond with various fabric types (striped, plaid, patchwork, and halftone designs).
- Color Separation: Accurate color management for both traditional and digital printing.
- Pre-printing processing: Prepare films for the appropriate printing method
- Colorways Production: Generate and manage up to of 200 color variations for each design

Target Audience: Textile Printing Technology Sector • Production engineers • Design and color separation engineers

Duration: 5 Days

Design Thinking

Design Thinking Essentials is a comprehensive course that introduces participants to the core principles and methodologies of design thinking. Participants will learn how to approach problem solving from a human-centered perspective, foster innovation, and develop creative solutions through hands-on activities and real-world case studies. By the end of the course, participants will have a solid foundation in design thinking and be equipped to apply these principles to a wide range of challenges.

Content

- Introduction to Design Thinking: Understanding the Basics
- Empathize: Putting Yourself in the User's Shoes
- Define: Reframing the Problem Statement
- Ideate: Generating Creative Solutions
- Prototype: Bringing Ideas to Life
- Test: Gathering Feedback and Iterating
- Design Thinking Tools and Techniques
- Design Thinking in Practice: Case Studies
- Implementing Design Thinking in Different Contexts
- Cultivating a Design Thinking Mindset

Target Audience: All Industries at junior and/or senior management levels.

Duration: 1 Day- 6 Hrs.



Advanced Design Thinking

Advanced Design Thinking is a specialized course tailored for Industry Experts and Experienced Professionals looking to deepen their understanding and application of design thinking principles within the context of complex industry challenges. Participants will explore advanced methodologies, tools, and strategies to drive innovation, enhance user experiences, and address multifaceted problems effectively. The course will emphasize practical applications through case studies, group exercises, and hands-on projects to equip industry experts with the skills needed to lead innovative initiatives within their organizations.

Content

- Advanced Design Thinking Frameworks and Models
- Design Thinking for Strategic Innovation
- Systems Thinking and Design Thinking Integration
- Design Thinking for Complex Problem Solving
- Human-Centered Design at Scale
- Design Thinking for Organizational Change and Transformation
- Design Thinking Metrics and Evaluation
- Design Thinking Leadership and Team Collaboration
- Design Thinking in Cross-functional Teams
- Ethical Considerations in Design Thinking

Target Audience All Industries at senior management level.

Duration: 2 Day- 12 Hrs

Product Development & Innovation

Product Development & Innovation is a specialized course designed to equip for Industry Experts and Seasoned Specialists with advanced knowledge and skills in bringing innovative products to market. Participants will delve into the intricacies of the product development lifecycle, explore cutting-edge innovation strategies, and learn how to navigate the complexities of launching successful products in competitive markets. Through a blend of theoretical concepts, practical case studies, and hands-on exercises, participants will enhance their ability to drive product innovation and strategic growth within their organizations.

- Product Development Lifecycle Overview
- Market Research and Opportunity Identification
- Design Thinking in Product Development
- Lean Startup Principles for Rapid Prototyping
- Agile Product Development Methodologies
- Cross-functional Collaboration in Product Teams
- User Experience Design and Usability Testing
- Product Strategy and Road Mapping
- Innovation Management and Continuous Improvement
- Scaling and Launching Products in the Market

Target Audience All Industries that involve creating and/or developing existing/new product/services/systems.

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- Cross-functional Collaboration in Product Teams
- User Experience Design and Usability Testing
- Product Strategy and Road Mapping
- Innovation Management and Continuous Improvement
- Scaling and Launching Products in the Market

Targeted Industries

All Industries that involve creating and/or developing existing/new product/ services/ systems.

Duration: 3 Day- 18 Hrs

Creative, Critical, and Strategic Thinking

This course is specifically designed for industry experts seeking to enhance their problem-solving capabilities and decision-making skills through a combination of creative, critical, and strategic thinking approaches. Participants will engage in experiential learning activities, case studies, and collaborative exercises to develop a holistic mindset that fosters innovative solutions, effective analysis, and strategic planning in complex business environments. By the end of the course, participants will be equipped with practical tools and techniques to tackle challenges with creativity, critical insight, and strategic foresight.

Content

- Introduction to Creative, Critical, and Strategic Thinking
- Cultivating a Creative Mindset in Business
- Techniques for Generating Innovative Ideas
- The Role of Critical Thinking in Problem Analysis
- Evaluating Information and Making Informed Decisions
- Strategic Thinking for Long-term Planning and Goal Setting
- Integrating Creative, Critical, and Strategic Thinking
- Applying Design Thinking Principles to Business Challenges
- Scenario Planning and Future Trend Analysis
- Developing a Culture of Continuous Improvement and Innovation

Targeted Industries

All Industries at senior/top management levels.

Duration: 2 Day- 12 Hrs

Mastering Visual Storytelling: Communicating Ideas through Art and Design

The Visual Storytelling course teaches participants how to craft compelling stories through visual media. It explores the fundamental elements of storytelling, such as narrative structure, character development, and visual composition, while focusing on the power of images, videos, illustrations, and other visual tools to convey messages. Students will learn how to communicate complex ideas, evoke emotions, and engage audiences through visual elements. The course includes practical exercises in a variety of media, such as photography, videography, digital illustration, and animation. Participants will gain hands-on experience in creating visual content that aligns with brand messaging, marketing strategies, or creative projects.

Content

- Introduction to Visual Storytelling
- The Language of Visuals
- Building a Visual Narrative
- Digital Tools for Storytelling
- Brand and Marketing through Visuals
- Visual Storytelling in Different Media
- Project-Based Learning

Targeted Audience:

- Marketing and Advertising
- Entertainment (Film, Animation, Gaming)
- Media and Publishing
- Technology and Software Development
- Fashion and Retail
- Healthcare and Education
- Robotics and Industrial Design

Course Duration:

- **Standard Duration:** 2-day intensive workshop or a 6-week program (with 2-hour sessions per week)
- **Extended Version:** 8-week program for more in-depth exploration, including project based assignments and case studies.

Effective Presentation Skills for Engineers and Technical Professionals

This course equips engineers and technical professionals with the skills needed to effectively present complex technical ideas, data, and innovations in a clear, concise, and compelling manner. Participants will learn how to tailor their presentations for diverse audiences, from technical experts to non-technical stakeholders, using structured content, impactful visual aids, and confident delivery techniques. The course also covers handling audience interactions, including Q&A sessions. Participants will gain practical experience through interactive exercises, real-world case studies, and personalized feedback. Whether presenting to internal teams, external clients, or industry conferences, this course ensures engineers can effectively communicate and influence their audience.

Contents

- Introduction to Technical Presentations
- Structuring Your Presentation
- Data Visualization and Visual Aids
- Storytelling and Persuasion Techniques
- Confident Delivery
- Handling Q&A and Audience Interaction
- Practical Presentations and Feedback

Targeted Industries:

- This course is designed to serve a wide range of industries where engineers and technical professionals need to present their work, including:
 - o Manufacturing and Production
 - o Robotics and Automation
 - o Aerospace and Defense
 - o Energy and Utilities
 - o Healthcare Technology
 - o Information Technology and Telecommunications
 - o Automotive and Transportation
 - o Construction and Civil Engineering



PHARM D PROGRAMS

HPLC Method Development

The HPLC Method Development workshop offers a comprehensive introduction to High-Performance Liquid Chromatography (HPLC). Participants will explore the key steps in developing robust and reproducible HPLC methods, including selecting appropriate columns, optimizing mobile phases, and ensuring method validation. A special focus will be placed on cutting-edge stationary phase technologies, providing attendees with insights into the latest advancements in the field. Through hands-on sessions and case studies, this workshop is ideal for researchers, analysts, and students looking to enhance their expertise in analytical chemistry and chromatography.

Target Audience:

- Quality control specialists in pharmaceutical industry
- Quality control specialists in the food industry.
- Researchers and students in chemical and petrochemical industry
- Researchers and students concerned with the environmental analysis
- Analysts in bioequivalence and stability centers
- Researchers in analytical chemistry and chromatography
- Analytical chemists and laboratory technicians
- Graduate students specializing in analytical sciences
- Professionals in the pharmaceutical industry
- Biotechnology industry experts
- Food and beverage industry analysts
- Environmental scientists focused on chemical analysis

Course Contents:

- Introduction to High-Performance Liquid Chromatography (HPLC) principles
- Selection and optimization of stationary phases
- Mobile phase selection and gradient optimization
- Method development strategies for various sample types
- Advanced stationary phase technologies and their applications
- Troubleshooting common HPLC issues
- Method validation and regulatory considerations
- Quantitative and qualitative analysis using HPLC
- Case studies and real-world applications of HPLC methods
- Hands-on laboratory sessions for practical method development

Course Duration: 4 days



Solid Phase Extraction

In this course, trainees will learn the fundamental principles of solid phase extraction (SPE), a widely used sample preparation technique for liquid samples. SPE is a powerful tool for the isolation, purification, and concentration of specific analytes from complex matrices. This technique is widely used in various fields such as environmental analysis, forensic science, phytochemistry and bioanalysis.

We will cover the theory behind SPE, including the different types of solid phase materials and their properties. You will have the opportunity to practice SPE techniques in a laboratory setting and learn about the factors that affect the performance of SPE.

Target Audience

The target audience for a workshop on solid phase extraction would typically be scientists, researchers, and technicians who work in fields such as:

- Analytical chemistry
- Environmental science
- Forensic science

By the end of this workshop, you will have a solid understanding of SPE and the ability to apply it to your own research or analytical projects.

Course Contents:

A workshop on solid phase extraction (SPE) would likely cover the theory and practical aspects of this method of sample preparation. Topics that might be covered include:

- The principles of SPE and how it differs from other sample preparation techniques
- SPE strategies
- The different types of solid phase materials that can be used in SPE (e.g. silica, polystyrene-divinylbenzene, C18)
- The selection of appropriate solid phase materials and sorbent bed masses for different sample matrices and analytes
- Steps and precautions for a successful SPE (conditioning, loading, washing, and elution).
- Techniques for loading samples onto the solid phase (e.g. liquid-liquid extraction, solid-liquid extraction)
- Methods for eluting the analytes from the solid phase (e.g. gradient elution, isocratic elution)
- Strategies for optimizing SPE methods for specific samples and analytes
- Quality control and validation of SPE methods
- Hands-on laboratory sessions to practice different steps of SPE

The workshop would also provide an opportunity for attendees to ask questions and discuss specific applications and challenges with experts in the field.

Course Duration: 2 days

Predicting Drug Solubility Using Molecular Modelling

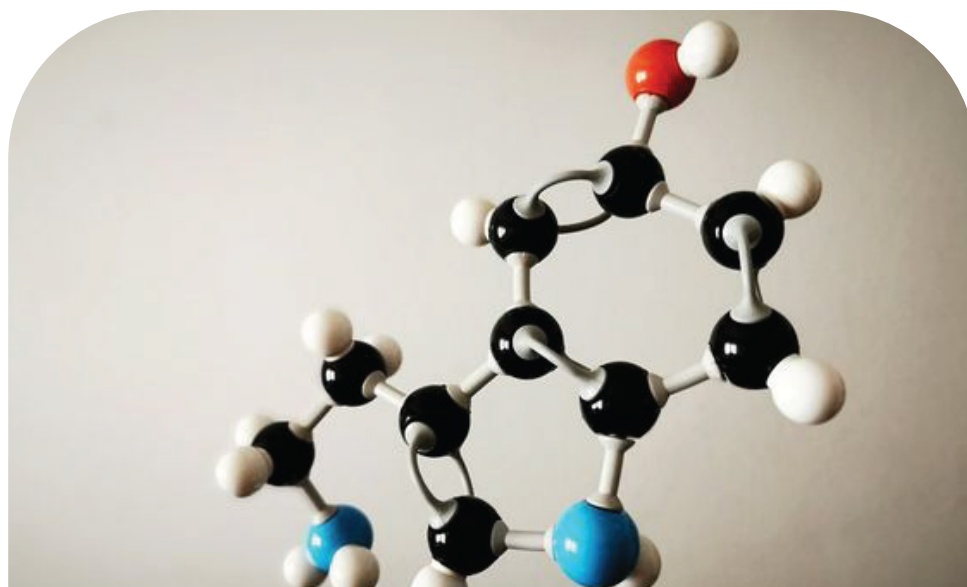
In this course we will discuss recent advances in computational prediction of solubility in water-based solvents. Our focus is set on recent advances in predictions of solubility. Recent advances in the modelling could be used for prediction of solubility. This course serves to provide an update on new approaches and how they can be used to more accurate prediction of solubility, and importantly, describe the molecular interactions and processes occurring during drug dissolution and solubilization.

Target Audience: Pharmaceutical Industry

Course Contents:

- Solubility and Dissolution
- Molecular Properties Resulting in Poor Aqueous Solubility of Drugs
- Drug Solubility in Polymers
- In silico Models for Solubility Prediction
- Solubility Parameters
- Prediction of Solubility by Modelling (Hansen - van Krevelen Methods)
- Combined Effect of pH and Cosolvency"

Course Duration: 3 days





**SUSTAINABLE
ARCHITECTURE
PROGRAMS**

Building Energy Modelling

The outdoor urban thermal performance directly affects the Indoor Environmental Quality (IEQ) and building energy consumption. Statistics show that energy demand is especially increasing in Egypt's newly developing cities. It can be clearly observed the importance of saving energy in buildings compared with other sectors. Therefore, there is a general movement towards finding effective sustainable design strategies, especially passive strategies, to reduce the energy demands of buildings and encourage further awareness of energy-conscious design.

Building energy modelling is important approach to evaluate and improve the energy efficiency of buildings and develop passive designs. Design builder is the most established and advanced user interface to Energy plus, the industry standard Building Energy Simulation tool

Target Audience:

- Architects and Urban Planners.
- Consultations companies.
- Energy Engineers
- Energy Audits

Course Content:

- Introduction to Thermal engineering and heat transfer through the building spaces and envelope.
- Study sustainable building design and its relationship to sustainable energy and building practice.
- Introduction to the concept of passive building and its standard.
- Simulating the energy performance of buildings using Design Builder software.
- Trainees will learn how to use performance simulation software and how it can help inform both design and client decisions.
- This course focuses on applying the tools in a real case study

Course Duration: 6 days





**LIBERAL ARTS &
CULTURE CENTER
PROGRAMS**

التحكيم التجاري الدولي

يعتبر التحكيم التجاري الدولي وسيلة فعالة لتسوية المنازعات الاستثمارية والتجارية وهو ما يستوجب تدريب القائمين علي صياغة عقود الاستثمار والشركات لكيفية كتابة شرط التحكيم في العقد وتعريفه باجراءات التحكيم سواء مؤسسي او حر وكيفية الدفاع عن مصالح الشركة او الهيئة والطنع وكيفية تنفيذ حكم التحكيم ورفع دعوى البطلان.

الفئة المستهدفة

مسئولي الشؤون القانونية

إدارة التعاقدات للشركات والمؤسسات

محتوى التدريب

التعريف بالتحكيم وفلسفته وتمييزه عن غيره

اتفاق التحكيم والاشكاليات المتعلقة به

إجراءات اختيار المحكم وهيئة التحكيم، والشروط الواجب توافرها في المحكم

الخطوات العملية لسير إجراءات التحكيم

صياغة حكم التحكيم وبطلانه ومشكلات تنفيذه

تطبيقات عملية



General English

This level-based course develops the knowledge and skills participants need to learn to succeed in a highly globalized world. It deals with contemporary topics that stimulate discussion and develop critical thinking to build on various language and communication skills. Participants will learn/enhance proper grammar usage and structure, enrich vocabulary and gain fluency in the English language.

Target Audience: Individuals who wish to improve their language skills.

Content:

- Provides a range of contemporary topics familiar to participants which can stimulate discussion and develop critical thinking helping them learn how to construct logical arguments in English.
- Offers a variety of authentic material that familiarize participants with actual English expressions and scenarios.
- Videos provide genuine interviews with real professionals.

Course Duration: 48 hours



Business English

This level-based course introduces individuals to topical business issues and builds the professional language and communication skills required for the modern world of business. Topics expose participants to the practicalities of business.

Consultant case studies help teach general business practices while improving English language skills.

Target Audience: Individuals who wish to improve their language skills in a business context and for businesspeople who want to advance their careers.

Content:

- business skills: negotiation, presentation, writing emails, telephoning and teleconferencing, small talk, meetings and interviews
- authentic texts develop reading skills and provide essential business vocabulary.
- interviews develop listening skills, such as prediction, listening for specific information and note taking.
- awareness of common problem areas and introduction to grammatical concepts.
- provide phrases for role play situations in the workplace.
- Case study discussions
- develop cultural awareness.

Course Duration: 36 hours

Computer Aided translation tools

This training is designed to help participants in creating and managing a translation memory. They are going to be able to translate texts with translation memory software which save time and enhance productivity.

They are going also to be able to build a corpus and use it for terminological purposes.

Target Audience:

- Professional translators
- Language and translation departments students
- Translation instructors

Content:

- Computer assisted translation tools versus Machine translation
- Corpus definition and uses
- Alignment Software
- Translation Memory Software's: Trados, Memo Q, Omega-T

Course Duration: 3 days (20 hours)



Terminology English

This training session is designed to help translators to manage their terminological resources in order to create their own database. Terminology management allows also companies to minimize delay in editing projects and makes it easier to update, replace, search or access term information across an entire organization and this reinforces a professional company image and expertise within the field.

Target Audience:

- Professional translators
- Language and translation departments students
- Translation instructors

Content:

- Extracting terminology from monolingual and bilingual corpus
- Concordance tools
- Building terminology database with open-source software

Course Duration: Two days (12 hours)

Subtitling

The aim of this course is to familiarize translators with all the basic techniques and to be able to work as a freelancer subtitler.

They are going to be able to practice on open-source software.

Target Audience:

- Professional translators
- Language and translation departments students
- Translation instructors

Content:

- Principles of subtitling
- Basic techniques of subtitling
- Practicing with videos and having feedback

Course Duration: Two days (12 hours)

Software and web site localization

(To attend this training candidates, must attend the computer aided translation tools training)

This training is designed to introduce learners to the basic concepts of localization. They are going to discover not only tools but methods of managing a localization project.

Target Audience:

- Professional translators
- Language and translation departments students
- Translation instructors

Content:

- Understand localization project management
- Translate and adapt a website to meet linguistic and culture needs in a market
- Customize a software for a special foreign market

Course Duration: Two days (12 hours)



Creating content

This course is designed to help writers to create innovative content that attracts the target companies which need to attract more visitors to their web sites or to their social media pages or blogs.

Target audience:

- Professional translators
- Professional from any discipline
- Undergraduate students
- Language and translation departments students

Contents:

- Content writing skills
- Content writing tools
- Content writing and copy right
- Blog posts content writing
- Business page content

Program duration: Two days (12 hours)

Technical writing

The training is designed to help writers to improve their technical documentation such as: instruction manual, policy manual, process manual, help files, user manuals, reports of analysis, instructions for assembling a product, summarization of a long report

Target audience:

- Professional translators
- Language and translation departments students
- Lawyers • Bankers
- Professional software engineer

Contents:

- Knowing the audience and doing extensive research on the topic
- Writing in a clear impersonal style
- Preparing a mind map
- Consulting with experts
- Technical writing techniques
- Technical editing techniques
- Creating a technical document template
- Graphs and charts in technical writing
- Case studies

Program duration: Two days (12 hours)

Management of translation project

The training is designed to help new translation project managers to deal with complicated multilingual translation project involving many tasks such as translation, proofreading, editing.

Target Audience:

- Professional translators in translation department in an enterprise
- New project manager at a translation company
- Professional translator's
- Translation students

Content:

- Life cycle of a translation project
- Pricing and rates
- Project analysis
- Cost management
- Project planning: scheduling, launching, monitoring closing
- Team management
- Quality management

Course Duration: Two days (12 hours)



Business Translation

This course is designed for translators with no background in the field of business to help them in the acquisition of the terminology, concepts and the phraseology of this field.

Target Audience:

- Professional translators
- Language and translation departments students
- Translation instructors

Content:

- Translating selected documents:
- leaflets, brochures, advertising campaigns, releases, websites, presentations, catalogs, market studies, advertising media, business newsletters, advertising

Course Duration:

Five days (20 hours)

Economic and financial translation

This course is designed for translators with no background in the field of economics and financial to help them in the acquisition of the terminology, concepts and the phraseology of this field.

Target audience:

- Professional translators
- Professional from any discipline
- Undergraduate students
- Language and translation departments students

Contents:

- Translating selected documents:
- Bank documentation, commercial proposals, market studies, balance sheets, annual accounts, audit reports, income statements, investment prospects

Program duration: Five days (20 hours)

Pharmaceutical translation

This course is designed for translators with a non-pharmaceutical background to help them in the acquisition of the terminology and the phraseology of the pharmaceutical translation for all stages of drug development.

Target audience:

- Professional translators
- Professional from any discipline
- Language and translation departments students

Contents:

- Translating selected documents: pharmaceutical analysis, lab reports, pharmaceutical articles, packaging and labels, technical sheets and prospects, pharmaceutical marketing material.
- Giving online resources that can help build subject-matter understanding pharmaceutical terminology.

Program duration:

Five days (20 hours)



Legal translation

This course is designed for translators with a non-medical background to help them in the acquisition of the terminology and the phraseology of this field.

Target audience:

- Professional translators
- Translation instructors
- Language and translation departments students

Contents:

- Learn the main characteristics of legal language and the mechanisms applied to write an appropriate legal sentence.
- Translating selected documents: translation of contracts, agreements and arrangements, purchase-sales contracts as well as premises lease agreements, labor agreements and license arrangements.

Program duration: Five days (20 hours)

Political translation

This course is designed to help translators in the acquisition of the terminology, concepts and the phraseology of this field.

It covers a wide range of new items like feminism.

Target audience:

- Professional translators
- Translation instructors
- Language and translation departments students
- Political sciences students.

Contents:

- Learn the main characteristics of political discourse.
- Translating selected documents: political speech, newspaper editorial, agreements

Program duration: Five days (20 hours)

Other Courses

- Industrial Designing
- Product Designing
- Service Designing
- Furniture Designing
- Interior Designing
- Graphic/ Corporate Identity
- Communication arts.
- Negotiation skills.
- Financial analysis.
- Food Safety Requirements
- Improving production processes
- Occupational Safety and Health Training
- ISO & Quality Training
- The arts of selling.
- Data Visualization



Previous Courses







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الجامعة المصرية اليابانية للعلوم و التكنولوجيا
エジプト日本科学技術大学
INDUSTRY TRAINING UNIT - ITU

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