



Continuing Education for the Productive Sector in Spanish-Speaking Latin America.

The transformation to more complex production processes and more individualized products, as well as intense international competition, demand constant development of employees' professional skills and expertise. We want to help you adapt to this transformation as quickly as possible! With our Y-Mas training program, you will learn what you need to know for the effective and efficient production management of tomorrow.

Your Way to Industrie 4.0

The aim of the Y-Mas continuing education program is to transmit valuable knowledge and skills in the field of production management for the Industrie 4.0. This modern and innovative continuing learning program is offered for specialists as well as middle and lower managers and is oriented to the individual's needs and is strongly related to the current context. Within the framework of the course, your employees will learn how to increase productivity, continuously improve production processes, design adaptable technical systems and ensure the health of employees. The consortium partners FIR at RWTH Aachen University (FIR), MTM ASSOCIATION (MTM) and PEM Aachen GmbH (PEM) offer you an innovative Blended-learning training program that addresses highly relevant topics of production management.

Tactical and Operative Production Management for the Transformation towards Industrie 4.0 in the Spanish-Speaking Latin American Productive Sector



Y-Mas offers manufacturing companies in Latin America transitioning to Industrie 4.0, as well as qualification of their employees with regard to the associated changes. With Y-Mas, specialists, operational managers and trainers will acquire valuable knowledge and skills in the field of production management.

Customized Continuing Education

We Support You on Your Path to an Effective and Efficient Production of Tomorrow!

Through the Y-Mas continuing education program, your employees will learn to manage production, logistics, work and learning processes more effectively and efficiently. At the same time, your employees will be prepared for the industrial transformation towards Industrie 4.0. We offer you a Blended-Learning-based program tailored to the individual needs of your company focused on four key topics of production management.

The Y-Mas Continuing Education Program Includes:

- modern maintenance (FIR),
- ergonomic work implementation (MTM),
- high-performance and rapid Ramp-up (PEM),
- management and integration of industrial logistics (FIR, MTM and PEM),
- effective and efficient work implementation, enhancing employees' learning processes (FIR),
- innovative human-oriented productivity management (MTM),
- modern tool and die manufacture management (WBA),
- Lean-methods adaptive to Industrie 4.0 (WBA),

realized as

- Blended-Learning-offering,
- customized to your individual needs.

The Program Addresses

- skilled employees and middle and lower management levels in manufacturing companies.



Chief Maintenance Manager

Industrial Maintenance –

Using the Potential in Your Company!

What We Offer:

The Institute for Industrial Management at RWTH Aachen University (FIR) offers the certification course “Chief Maintenance Manager” that provides comprehensive key competencies for future maintenance tasks, highlights their increasing importance for companies and provides information on current trends. Experts from industry and research impart knowledge from Best Practices and lectures, deepened by means of case studies and practical exercises.

Target Group:

Maintenance and production managers, general managers, senior employees of the different specialized departments of the company and managers of maintenance-related areas.

Goals of the Course and Key Competencies to be Acquired:

In combination of theoretical aspects and team exercises, the didactic contents are conveyed descriptively. The presentation of experiences and Best Practices is a decisive factor for the application and development of what has been learned. Through this combination, participants will be sensitized to the new challenges of maintenance management, making this certification course a unique continuing education offer.



At the End of the Course, Participants Will be Able to:

- understand the current economic situation and the current maintenance issues of the company,
- manage maintenance in the transition to Industrie 4.0 in an innovative way,
- identify occupational safety requirements in maintenance activities,
- select and implement maintenance strategies in relation to process safety,
- identify and evaluate aspects of maintenance to reduce costs and increase efficiency,
- make the necessary decisions regarding leadership in the maintenance of tomorrow.

Ergonomic Work Design – Perform Ergonomic Evaluations Autonomously!

What We Offer:

The MTM ASSOCIATION e. V. (MTM) offers a qualification in ergonomic work design as EAWS-practitioner. This offer starts with the EAWS training module, followed – preferably – by several months of practical application. This is followed by training as an EAWS professional. After successful completion, the participant will receive the “Blue Card” (EAWS) certificate. This is an internationally recognized certificate of competence for EAWS practitioners, which is valid for three years. The trainings are offered public or in-house.

Target Group:

Specialists and managers in the fields of industrial engineering, planning, time management, process planning, production, logistics, occupational health and safety, as well as company doctors, safety specialists, representatives of the works council and other interest groups.

Goals of the Course and Key Competencies to be Acquired:

The EAWS-Practitioner qualification encompasses knowledge and skills for the application of the EAWS method. The aim of the training is to enable participants to carry out ergonomic assessments using the EAWS method and to evaluate ergonomic risks.



At the End of the Course, Participants Will be Able to:

- understand the fundamentals of ergonomics,
- understand the legal basis for ergonomics assessment,
- identify application areas and requirements for EAWS,
- identify the design and structure of the EAWS method,
- perform a comprehensive assessment of the physical loads on the entire body and on the upper extremities based on EAWS,
- design work systems and processes for ergonomic optimization,
- perform ergonomic assessment and process modelling with MTM.

Efficient Ramp-up – Designing a Modern Ramp-up Management

What We Offer:

The PEM Aachen GmbH (PEM), offers the certification course “Ramp-up Management” that provides its participants with the knowledge and practical skills in this highly dynamic field. The main characteristic of ramp-up management is its connection to nearly all processes in a production company; it is therefore defined by interdisciplinary and high complexity. In the course relevant methods and concepts of ramp-up management will be covered. The entire product life cycle starting from the first prototype up to a product ready for release will be illustrated and the participants will gain hands-on experience using realistic case studies.

Target Group:

Key technical and operative managerial personnel from areas including: Production and production planning, procurement, training, logistics and logistics planning, quality, development and change management.

Goals of the Course and Key Competencies to be Acquired:

Having participated in the certification course “Ramp-up management” the participants will be able to implement and systematically improve a consistent target system that considers the various connected disciplines and their respective requirements. In this way, they can contribute to stable processes in a dynamic and interdisciplinary context. They will also be able to create and maintain an efficient product development process.



At the End of the Course, Participants Will be Able to:

- conceptualize a successful ramp-up process according to the Aachen model that is both technically and economically sustainable,
- explain the complexity of ramp-up management and the interaction of the processes it involves,
- name and describe the controlling and correction measures for the business departments involved and their respective business processes,
- describe and confidently realize optimization methods of change management in the context of ramp-up management.

Industrial Logistics Management and Integration on the Road to Industrie 4.0

What We Offer:

The FIR, MTM and PEM, in order to comprehensively introduce participants to the topic of “Industrial Logistics”, offer the course that will cover everything from the goals and tasks of Industrial Logistics to individual aspects of Interlogistics, Logistics Processes and Intralogistics. Special focus is placed on highlighting recent developments in research and industry. Overall, the course emphasizes the theoretical contents with examples from Best Practices in the industry.

Target Group:

Managers and executives of logistics or production departments.

Goals of the Course and Key Competencies to be Acquired:

Interlogistics: the offered course teaches the goals and tasks of industrial interlogistics as well as the most important aspects from organizational integration to logistics controlling. Furthermore, the importance and the influence of special issues will be conveyed.

Logistics Processes: the course provides the participant with knowledge and skills for planning, designing and optimizing logistics processes. The course also teaches practical application of the logistics building blocks, created on the level of operation steps and operation sequences in combination with the MTM-UAS building block system.

Intralogistics: the offered course provides the necessary knowledge to design intralogistics in such a way that not only costs can be saved, but also the risk of line downtime due to a faulty logistics chain can be minimized.



Efficient Learning Processes –

Developing Competencies Work Integrated

What We Offer:

The Institute for Industrial Management at RWTH Aachen University (FIR) offers the certificate course “Chief Workplace-Innovation Manager” that provides participants with extensive expertise in the fields of competence management regarding the transition towards Industrie 4.0. Also, knowledge regarding the implementation of learning efficient work processes, change management and innovative management concepts in relation to the productive sector in Latin America is provided.

Target Group:

Specialists and operative executives in the fields of work implementation, production management and human resources management.

Goals of the Course and Key Competencies to be Acquired:

The “Chief Workplace-Innovation Manager” aims to generate crucial knowledge and adequate leadership concepts for the successful industrial transformation towards Industrie 4.0 among operative managers and their staff members. A special focus is placed on enhancing learning in work processes by means of technology-based and classic work integrated learning approaches. Moreover, implications and approaches for dealing with socio-cultural differences between Germany and Latin America will be discussed.



At the End of the Course, Participants Will be Able to:

- understand the changes resulting from the transformation towards Industrie 4.0,
- initiate change processes of existing work systems confidently and motivate staff members,
- apply adequate leadership concepts,
- evaluate the competences of the staff members professionally and recognize development potential at an early stage,
- recognize and evaluate learning potentials during the work process,
- select and implement appropriate measures for work-based learning processes,
- identify socio-cultural potentials and challenges in international cooperation,
- overcome cultural differences and create synergies.

Productivity Management – Productive and Healthy Work

What We Offer:

The MTM ASSOCIATION e. V. (MTM) offers courses to achieve the MTM-practitioner qualification. This starts with training MTM-1, subsequently followed by training in at least a second MTM-process language and – preferably – an application practice for several months. After a successful completion of the training “MTM-practitioner” the participant receives the “Blue Card”. Each training or of the whole qualification as “MTM-practitioner” with the certificate “Blue Card” is offered either as a public or an internal training.

Target Group:

Specialists and operative executives in the fields of industrial engineering, planning, time management, process planning, production, logistics, work safety, product design and operating material design as well as representatives of the works council and other representatives of interest.

Goals of the Course and Key Competencies to be Acquired:

The qualification as MTM-practitioner encompasses knowledge and skills to the application of the MTM approach, in particular the application of the individual MTM process languages for planning, composition and optimization of processes, work systems and products.



- is an internationally recognized quality standard regarding the MTM-training and application,
- is accepted and appreciated by both employer and employee side,
- is embedded in many company agreements in Germany as well as worldwide,
- is regarded as proof of fulfilment with the high standards of companies and works councils regarding the quality of MTM-training and application,
- applies to the completed process languages and is valid for three years.

Industrial Toolmaking –

Technologies and Strategies for a Sustainable Tool and Die Making

What We Offer:

The WBA Aachener Werkzeugbau Akademie offers the certificate course “Expert Industrial Tool and Die Making” that comprises essential core elements of the industrial tool and die making and includes detailed concepts and methods by which a traditionally handcrafted tool and die making company can develop into an industrial tool and die making company of international standard.

Target Group:

Assembly technicians and executives operating in tool and die making at manufacturers and suppliers in the Latin-American production sector.

Goals of the Course and Key Competencies to be Acquired:

The aim is to develop competences of specialists and operative executives in tool and die making as far as possible in order to be able to maintain, repair, develop and produce highly complex tools on site. In addition, they acquire skills in the design, control and documentation of production processes as well as in the application of computerized construction methods.



At the End of the Course, Participants Will be Able to:

- apply current production and material technologies to optimize processes in tool and die manufacturing,
- identify tool damage and repair it self-sufficiently,
- plan, implement and optimize services in tool and die manufacturing by applying adequate models,
- improve and control maintenance strategies,
- plan, control, and document tool and die production processes independently,
- apply computer-assisted construction methods and CAD and CAM methods that have been developed in accordance with specific requirements,
- develop and implement automation solutions independently,
- implement numerical methods and simulation procedures.

Lean Management –

Implementing Lean in the Digital Transformation Process Holistically

What We Offer:

The WBA Aachener Werkzeugbau Akademie offers the certificate course “Lean Management 4.0 Production Expert” that teaches participant’s application-oriented knowledge and abilities to introduce and implement principles and methods of Lean Thinking for Industrie 4.0. Lean Thinking is based on the five basic principles customer value, value stream, flow-processes, pull principles and perfection. In the course offered by the WBA these principles are picked up and extended by the perspective of transformation according to a future-oriented and sustainable Lean training.

Target Group:

Specialists and operative executives responsible for implementation of organizational change processes.

Goals of the Course and Key Competencies to be Acquired:

The main goal is to qualify the participants in the implementation of lean and lean compatible solutions for the digital transformation pro-cess. The participants will acquire knowledge and capabilities in the tools of lean management and apply these in case studies, business games as well as in practical learning projects.



At the End of the Course, Participants Will be Able to:

- mediate lean principles and mindsets to employees on the shopfloor,
- apply lean methods in development, production, administration and innovation,
- initiate change processes in the company and take responsibility for the implementation,
- recognize any type of wastefulness in a company early,
- enhance lean management in teams of production employees actively,
- moderate the continuous improvement process in the company,
- identify critical success factors and key performance figures and visualize their impacts on processes.

Organizers



Institute for Industrial Management at RWTH Aachen University (FIR)

The FIR does not only offer the above-described course but also coordinates the Y-Mas continuing education program. The FIR is a non-profit, intersectoral research and educational institution at RWTH Aachen University with about 120 staff members. For more than 60 years the FIR is considered one of the leading German research institutions in the field of organization and industrial management. Furthermore, it is concerned with the organization of corporate IT aiming at establishing the organizational basis for the digitally integrated industrial enterprise of the future. As an internationally recognized institute and a long-term partner of the German automotive sector, FIR takes responsibility as the main contact for the Y-Mas program.



PEM Motion (PEM)

The PEM is an engineering and consulting service provider, that was founded as a spin-off from the professorship for Production Engineering of E-Mobility Components at RWTH Aachen University. The company is active mostly in e-mobility. To achieve its goals, Pem Motion GmbH is present in four locations in Europe and North America. Customers are automobile manufacturers as well as mobility service providers, automotive suppliers, and start-ups. We support our customers in product development and production planning of alternative propulsion components such as battery cells and electric motors, but also with infrastructure projects and industrialisation of mobility solutions. As part of the PEM Academy, PEM Motion offers a variety of training and further education programmes which are both close to industry and based on current trends in research and development, providing its participants with up-to-date knowledge of relevant processes in e-mobility component production.



MTM ASSOCIATION e. V. (MTM)

The MTM based in Hamburg, Germany, was founded in 1962 under the name of Deutsche MTM-Vereinigung e. V. as a non-profit, scientific-technical association. It has more than 400 members, of which approximately 250 company members represent about 2.75 million employees in Germany. MTM's special expertise is the productivity management in industry, services and administration. Hereby the main objective is to reach the optimal combination of efficiency and ergonomics. In the field of industrial engineering, the scientific methods and tools of MTM rank among the most important international standards in the industry.



WBA Aachener Werkzeugbau Akademie GmbH (WBA)

The WBA is engaged in the business areas research, industrial consultancy and training and was founded in 2010 as spin-off of the Laboratory for Machine Tools and Production Engineering WZL of the RWTH Aachen University as well as of the Fraunhofer Institute for Production Technology IPT. Together with over 80 company members (among others Audi, Daimler, Hirschvogel, Rathgeber) the WBA develops innovative solutions for tool and die making. By modelling the complete process chain of tool and die making new concepts and technologies can be developed and piloted in the demonstration world of the WBA on the RWTH Aachen Campus. The WBA can build on vast international experiences within the automotive sector in its field of expertise.

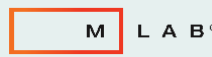
Y-Mas Offers So Much More!

Y-Mas Associated Partner Network

Get to know the benefits that you receive as a Y-Mas associated partner!

You will Benefit from:

- mediation of highly qualified and motivated graduates, as well as, projects and final theses,
- events for companies, education providers, research institutions and other organizations around the manufacturing sector in Latin America,
- access to continuing education opportunities beyond the Y-Mas program,
- provision of dedicated market studies for the manufacturing sector in Latin America,
- regular newsletters about trends and developments in the Latin American manufacturing sector,
- qualified consulting service for the manufacturing sector in Latin America,
- possibility to exchange knowledge and experiences with network partners within Y-Mas network.



Contact



FIR e. V. at RWTH Aachen University (FIR)
Drs. Roman Senderek
Campus-Boulevard 55
52074 Aachen
phone: +49 241 47705-225
Email: Roman.Senderek@fir.rwth-aachen.de
www.fir.rwth-aachen.de/en/



MTM ASSOCIATION e. V.
Prof. Peter Kuhlang
Elbchaussee 352
22609 Hamburg
phone: +49 40 822779-0
Email: peter.kuhlang@mtm.org
www.mtm.org



PEM Motion North America (PEM)
Christoph Lienemann
Bohr 12
52072 Aachen
phone: +49 151 16179532
Email: c.lienemann@pem-motion.com
www.pem-motion.com

SPONSORED BY THE



Federal Ministry
of Education
and Research

SUPPORTED BY



Deutsches Zentrum
für Luft- und Raumfahrt
German Aerospace Center

www.y-mas.de
www.y-mas.lat
www.y-mas.com