Academy

Course catalogue

BLM GROUP

TRAINING

Our experience expands your potential

Our training packages aim to eliminate the main factors that limit productivity, system availability and production quality in order to maximize efficiency and competitiveness.
100% efficiency

The correct training of operators has a strong impact on **Overall Equipment Effectiveness.**

Efficiency
Trained operators increase the rate of production by implementing the knowledge of best practices, promptly solving minor stops during work and carrying out maintenance operations correctly at the right frequency.

Quality
Trained operators reduce errors, rejects, trial-and-error approaches, and corrections in order to maximize production quality.

Productivity
Operators who attend a training course are more involved, motivated, satisfied, and responsible. This considerably improves the quality and efficiency of their work.

OVERVIEW OF COURSES

Flexible and multi-technology training

Convenience of choice so you never have to give up

Multiple training course options: Webinars, e-learning, at a BLM GROUP facility or on-site. You can choose the most convenient way to train yourself and your operators. The wide range of courses incorporates all the technologies of the Group and the main areas of interest.

Technologies

Lasertube
3D laser cutting cells
Tube bending

MACHINE COURSES
✓ Production support
✓ Processing technology
✓ Maintenance

PROGRAMMING COURSES
✓ CAD/CAM
✓ Software modules

Webinars
Designed to learn from the convenience of your home or office.

Group courses
Created so you can experience our most advanced technology firsthand.

E-learning
Full content available online at any time.

On-site courses
Provides real answers to everyday needs.

BLM GROUP

IDENTIFY THE RIGHT TRAINING COURSE FOR YOU

Finding the right training course is very simple

Use this catalogue to quickly and easily identify the most suitable training plan for each operator.

By defining the technology, area of interest and the level of experience, you can pinpoint the specific modules and sessions that are best suited to your real needs and develop a personalized training plan targeted to your specific objectives.

What technology do you want to learn more about?

The labels on the following pages allow you to quickly find your technology of interest.

What is the area of interest?

You can choose the most suitable type of course according to the participant's role in the company.

What is the participant's level of experience?

Identifying the correct level of experience maximizes training effectiveness.

How can I sign up?

Registrations or enquiries can be made via the web **(www.blmgroup.com/academy)** or by contacting your local service team.

LASERTUBE

		Basic	Forward
Machine	Production support	Lasertube use and operation	Lasertube use and operation
		Active Tools package	
		Tube cleaner device	
		Laser cutting of open profiles and special sections	
		Laser cutting of HEA, HEB and IPE beams	
	Maintenance	Lasertube maintenance	
		LT14 and LT24 maintenance	

		Basic	Forward
Programming	CAD/CAM	Artube	Artube
		Artube: open profiles and special sections	
		Artube: HEA, HEB and IPE beams	
		Artube: open profiles and large special sections	
	Software modules	Protube Enterprise	
		Protube and ERP connection	
		Composer	

LASERTUBE

Machine courses

PRODUCTION SUPPORT

Basic Lasertube use and operation

> Objectives

To make the operator autonomous in using the system and to fully exploit its potential.

> Topics of the course

Machine settings and practical use.
Start-up, HMI and basic logic.
Handling material.
Technological setup.
Production management.
Specific course for machines: LT5, LT7 and LT8.

Advanced Lasertube use and operation

> Objectives

To take the operator to an advanced and autonomous level of machine use in order to exploit the machine's potential to the fullest.

> Topics of the course

Advanced machine set-up and operation with an in-depth look at devices and accessories: tube cleaner device, special unloaded loads, full bar machining and compensation cycles.
Cutting technology parameters (2D / 3D).
Specific course for machines: LT5, LT7 and LT8.

Active Tools package

> Objectives

To make the operator autonomous in the configuration and use of Active Tools.

> Topics of the course

Active Speed
Active Weld
Active Scan
Active Tilt
Active Piercing
Active Marking
Composition of the module according to the customer specific requirements.

Tube cleaner device

> Objectives

To make the operator autonomous in the configuration and use of the tube cleaner device.

> Topics of the course

Operation, settings and use of the tube cleaner device.
Specific course for machines: LT5, LT7 and LT8.

Laser cutting of open profiles and special sections

> Objectives

To make the operator autonomous when cutting special sections and open profiles on the machine.

> Topics of the course

Cutting standard C and L open profiles and special sections with system configuration and management via the HMI interface, setting of technological parameters and parts management.
Specific course for machines: LT7 and LT8.

Laser cutting of HEA, HEB and IPE beams

> Objectives

To make the operator autonomous in cutting HEA, HEB and IPE beams and open profiles.

> Topics of the course

Machine cutting of open profiles and HEA, HEB and IPE beams. System configuration and management and HMI interface.
Setting of technological parameters and parts management.
Specific course for machines: LT5, LT FIBER, LT7 and LT8.

LASERTUBE

Machine courses

MAINTENANCE

Lasertube maintenance

> Objectives

To make the operator autonomous in advanced maintenance of the Lasertube systems both efficiently and at the right frequency.

> Topics of the course

General system checks and fluid replacement.
Lubrication system checks and greasing of mechanical parts.
Integrity checks on sensitive components and replacement procedures for compromised parts.
Procedures and methods to operate efficiently during telephone support interventions.
Specific course for machines:
LT5, LT FIBER, LT7, LT722D.

LT14 and LT24 maintenance

> Objectives

To make the operator autonomous in advanced and efficient maintenance on the LT14 and LT24 systems at the right frequency.

> Topics of the course

General system checks and liquid change.
Check, tightening and greasing of pinion, carriage movement.
Maintenance and calibration of tail carriage spindles.
5-axis zero check and probe calibration.
Integrity checks on sensitive components and replacement procedures for compromised parts.
Procedures and methods to operate efficiently during telephone support intervention.
Specific course for machines: LT14 and LT24.

LASERTUBE

Programming courses

CAD/CAM

Basic Artube

> Objectives

To enable operators to design and prepare the program to produce parts on a Lasertube machine.

> Topics of the course

Using basic CAD and CAM functions.
Importing 2D drawings.
Importing STEP and IGES files made on other CAD software.
Using the Best Panel and the License Console.
Basic use of Assembler and Automator.

Advanced Artube

> Objectives

To provide advanced knowledge on the use of Artube software features.

> Topics of the course

Advanced CAD and CAM: editing vectors, exporting the cut part, programming complex cuts, defining projection rules and manual resolution of multiple interferences.
Advanced 2D drawing: segment and/or bend correction on tube bending axis and importing of 2D drawing management.
Advanced Assembler and All-In-One management.

Artube: open profiles and special sections

> Objectives

To train operators in programming orthogonal and non- orthogonal (3D) cutting of open profiles and special sections.

> Topics of the course

Specific programming management in CAD-CAM environment. Programming of 2D and 3D laser cutting cycles on open profiles and special sections.
Importing and modifying parts and structures.
CAM environment and part program generation.
Technological insights, criticalities and programming suggestions.
Specific course for machines: LT FIBER EVO, LT7 and LT8.

Artube: HEA, HEB and IPE beams

> Objectives

To train operators in programming orthogonal and non- orthogonal 3D laser cutting of HEA, HEB and IPE beams.

> Topics of the course

Specific programming management in CAD-CAM environment.
Programming of 2D-3D laser cutting cycles on HEA, HEB and IPE beams.
Import and modify structures and parts.
Optimization of CAM parameters.
Specific course for machines: LT14 and LT24.

Artube: open profiles and large special sections

> Objectives

To train the operator in programming 3D cutting of open profiles and large special sections.

> Topics of the course

Specific programming management in CAD-CAM environment.
Programming of 2D-3D laser cutting cycles on HEA, HEB and IPE beams.
Importing and modifying parts and structures in IFC format.
Using Composer.
Cutting parameter set-up.
Active Marking.
Specific course for machines: LT14 and LT24.

LASERTUBE

Programming courses

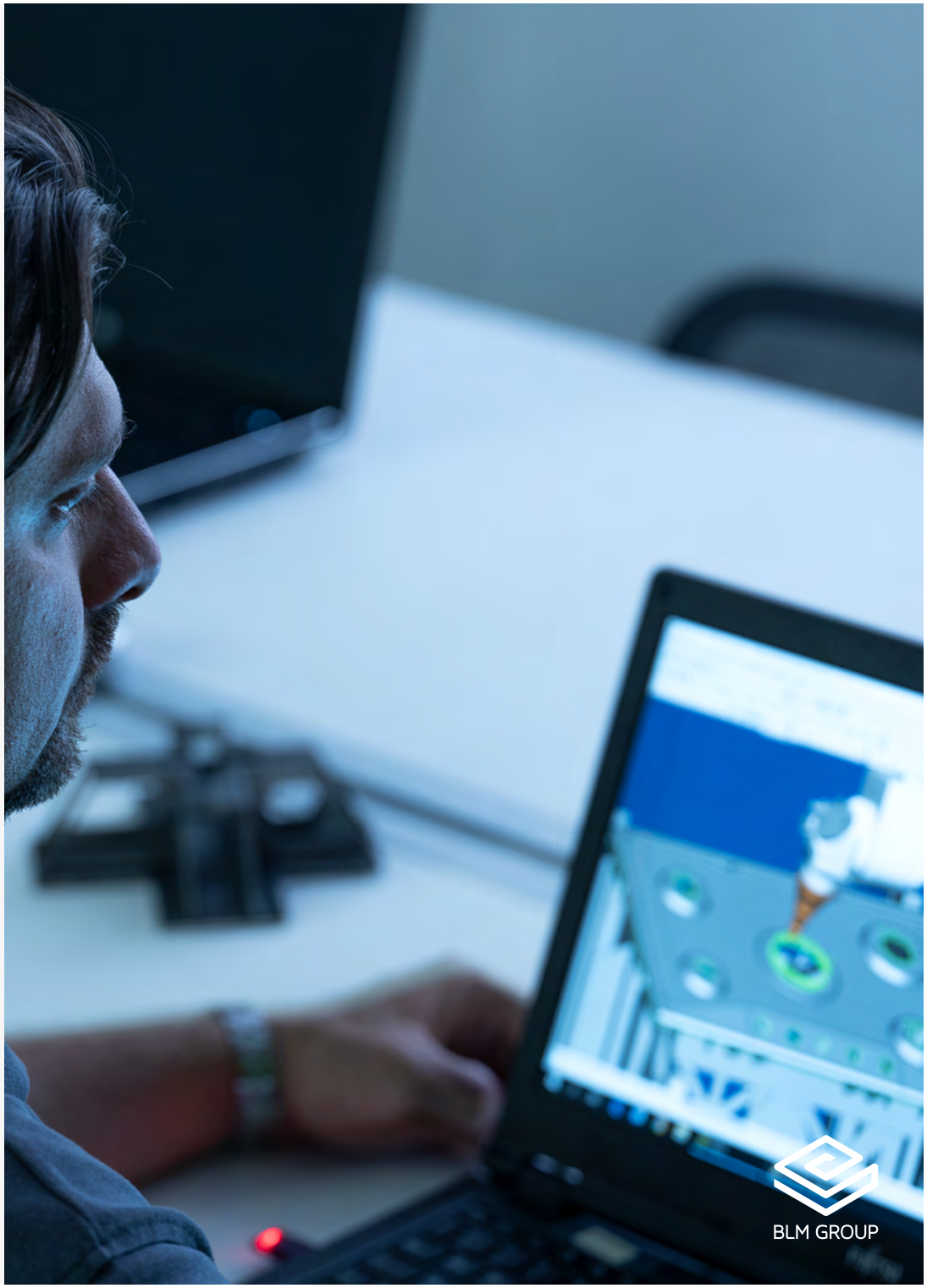
SOFTWARE MODULES

Protube Enterprise	Protube and ERP connection	Composer
> Objectives To train the operator to be autonomous in the use of Protube Enterprise.	**> Objectives** To provide the necessary knowledge for integrating Protube software in your ERP system.	**> Objectives** To make the operator autonomous in the use of Composer.
> Topics of the course Setup and installation. Database, orders, work orders, nesting, statistics, import. Report Engine: export post-production data in various formats. Importing data from ERP. Post-production data retrieval. Use and practical tests.	**> Topics of the course** How to integrate Protube Enterprise with the customer's management software.	**> Topics of the course** Management of Artube modules. Composition of modules. XML file management.

3D LASER CUTTING CELLS

		Basic	Forward
Machine	Production support	LT-FREE use and operation	LT-FREE use and operation
	Bending technology	Laser safety	
		Active Gripper	
		Active Tools Package	

		Basic	Forward
Programming	CAM	ArtCut	ArtCut
	Software modules	ArtCut 2D module	
		ArtCut supports	



3D LASER CUTTING CELLS

Programming courses

PRODUCTION SUPPORT

LT-FREE use and operation basic

> Objectives

To acquire the basic technical knowledge necessary to make the operator able to prepare and start-up production autonomously.

> Topics of the course

General presentation of the HMI interface.
Manual movement of axes and devices.
Production batch management.
Automatic cycle modes.
Programming on the machine.
Part parameters and technology database.
Simulation on the machine and production start-up.

LT-FREE use and operation advanced

> Objectives

To acquire advanced technical knowledge used to improve the operator's skills in preparation, start-up and production optimization.

> Topics of the course

Advanced production batch management. On-board programming and optimization of work cycles.
Practical exercises which involve starting production on the machine of specific parts with an advanced level of difficulty.

BENDING TECHNOLOGY

Laser safety

> Objectives

To acquire the necessary knowledge to control the risks associated with the laser and avoid potential damage.

> Topics of the course

Course compliant with the provisions on information and training of Italian Legislative Decree 81/08.

Active Gripper

> Objectives

Learn how to program and manage Active Gripper to cut at any point on the surface without the need for manual repositioning.

> Topics of the course

General description of the Active Gripper system.
On-machine programming of devices without interaction with the production cycle.
Programming in ArtCut of devices with movement during the production cycle.

Active Tools Package

> Objectives

To acquire the basic technical knowledge on Active Tools to use the LT-FREE in the best and simplest way.

> Topics of the course

Active Restart, in the event of an unforeseen or sudden stop, allows you to restart from where the cut stopped.
Active Focus adjusts the laser's focal position to optimize cut quality.
Active Speed dynamically manages the technological parameters of the cutting process.
Active Piercing optimizes the piercing phase.
Introduction on the Active Gripper.

3D LASER CUTTING CELLS

Programming courses

CAM

ArtCut basic

> Objectives

To acquire the basic technical knowledge needed to make the operator autonomous in ArtCut offline programming.

> Topics of the course

General notions of the programming logic.
Graphic simulation.
Programming modules: cell configuration, operations, program simulation and support generation and loading/unloading.
In-depth examination of the most common process issues.

ArtCut advanced

> Objectives

To acquire the advanced technical knowledge needed for the operator to autonomously program ArtCut offline.

> Topics of the course

In-depth focus on advanced process issues: inclined cutting, junction management and collision resolution.
Practical exercises which involve programming of specific parts with advanced level of difficulty.

SOFTWARE MODULES

ArtCut 2D

> Objectives

To acquire the basic technical knowledge needed for the operator to program 2D laser cutting on flat sheets autonomously.

> Topics of the course

General principles of laser sheet metal cutting programming.
Interface presentation and programming modules: Drafter, Nester, Path Finder.
Machine setup for laser sheet metal cutting; 2D part program manager on the machine, simulation, and production start-up.

ArtCut supports

> Objectives

To gain autonomy in designing and cutting jigs for workpiece supports.

> Topics of the course

Designing, defining the parameters, support and managing of the cutting program.
Changing cutting-ji
plate-components individually.
Cutting and assembly of the cutting-jig on the machine.

TUBE BENDING MACHINE

Machine	Production support	Tube benders use and operation
	Bending technology	Bending technologies
		Stretch bending
		Variable radius bending
	Maintenance	Tube bender maintenance

		Basic	Forward
Programming	CAD/CAM	VGP3D	VGP3D
	Software modules	Holes and weld seam search	
		Options B	
		Tool Designer	

TUBE BENDING MACHINE

Machine courses

PRODUCTION SUPPORT

Tube benders use and operation

> Objectives

To acquire the basic technical knowledge needed to make the operator able to prepare and start-up production on tube bending machines autonomously.

> Topics of the course

Manual axis and device actuation.
Access levels and automatic operating modes.
Production batch management.
Basic messaging.
Tool changes, calibration and adjustment.
Production start-up.

BENDING TECHNOLOGY

Bending technologies

> Objectives

To acquire the technical knowledge necessary to determine the programming of parts with stretch, bending and variable radius bending technology.

> Topics of the course

Bending cycle and affected devices.
Effects of elongation and elastic return.
Stretching.
Flexion.
Variable radius.

Stretch bending

> Objectives

To acquire advanced technological knowledge for optimizing tube bending programs and production processes.

> Topics of the course

Cambio, regolazione e calibrazione attrezzature.
Dimostrazione pratica degli effetti di allungamento, ritorno elastico, booster, controllo di coppia e di posizione.
Compatibilità dei lubrificanti e materiali.
Prove pratiche di curvatura.

Variable radius bending

> Objectives

To acquire advanced technological knowledge for optimizing tube bending programs and production processes.

> Topics of the course

Bending tools changeover, set-up and calibration.
Practical demonstration of the effects of elongation, elastic return, booster, torque and position control.
Elastic return.
Creation and management of variable radius bending.
Practical bending test.

MAINTENANCE

Tube bender maintenance

> Objectives

To acquire the theoretical and practical skills to carry out maintenance on tube bending machines.

> Topics of the course

Tests on the machine.
Routine maintenance plan.
BLMmotion software.
Approach to troubleshooting.

TUBE BENDING MACHINE

Programming courses

CAM

VGP3D basic

> Objectives

To gain autonomy in basic VGP3D programming.

> Topics of the course

Interface presentation.
Programming from template.
Graphic simulation.
Theoretical XYZ and UVW coordinates.
Corrected Coordinates management.
Resolution of simple collisions.

VGP3D advanced

> Objectives

To gain autonomy in complete VGP3D programming necessary for creating and optimizing bending programs.

> Topics of the course

Template management.
Management and programming of new tools and accessories.
Cycle and sequence options.
Point table.
Collision solution exercises.

MODULI SOFTWARE

Holes and weld seam search

> Objectives

To gain autonomy in setting and adjusting the dedicated weld seam or hole search accessory.

> Topics of the course

Presentation of the accessory and its operation.
Mechanical adjustment procedures.
Sensor calibration procedure
VGP3D and BLMmotion parameter setting.
Practical tests on the machine.
Search accuracy optimization.

Options B

> Objectives

To gain autonomy in the use of optional B modules.

> Topics of the course

The available contents are related to the following modules:
B_Tools
B_Import
B_Export
B_3D_Tool
B_3D_Part
B_Measure
B_Weld
B_Barcode
Composition of the module according to the customer's needs.

WIRE BENDING

Machine	Production support	Wire benders use and operation
	Bending technology	Wire bending technologies
	Maintenance	Wire bender maintenance

		Basic	Advanced
Programming	CAD/CAM	VGP3D	VGP3D
	Software modules	Options B	

WIRE BENDING

Machine courses

PRODUCTION SUPPORT

Wire benders use and operation

> Objectives

To acquire the basic technical operator knowledge needed to prepare and start-up production on wire bending machines autonomously.

> Topics of the course

Manual axis and device actuation.
Access levels and automatic operating modes.
Production batch management.
Basic messaging.
Tool changes, calibration and adjustment.
Production start-up.

BENDING TECHNOLOGY

Wire bending technologies

> Objectives

To acquire the technical knowledge necessary to determine the programming of parts with different bending technologies.

> Topics of the course

Bending typologies
- Bending on standard bushing
- Edge bending
- Strike bending
- Flex-rotary draw bending
- Bending on double die
- Variable radius bending
- Interpolated bending

MAINTENANCE

Wire bender maintenance

> Objectives

To acquire the theoretical and practical skills required to complete tube bending machine maintenance.

> Topics of the course

Tests on the machine.
Routine maintenance plan.
BLMmotion software.
Approach to troubleshooting.

WIRE BENDING

Programming courses

CAM

VGP3D basic

> Objectives

To gain autonomy in basic VGP3D programming.

> Topics of the course

Interface presentation.
Programming from models.
Graphic simulation.
Theoretical XYZ and UVW coordinates.
Corrected Coordinates management.
Resolution of simple collisions.

VGP3D advanced

> Objectives

To gain autonomy in complete VGP3D programming necessary for creating and optimizing bending programs.

> Topics of the course

Model management.
Management and programming of new bending tools and accessories.
Cycle and sequence options.
Point table.
Collision solution exercises.

SOFTWARE MODULES

Options B

> Objectives

To gain autonomy in the use of optional B modules.

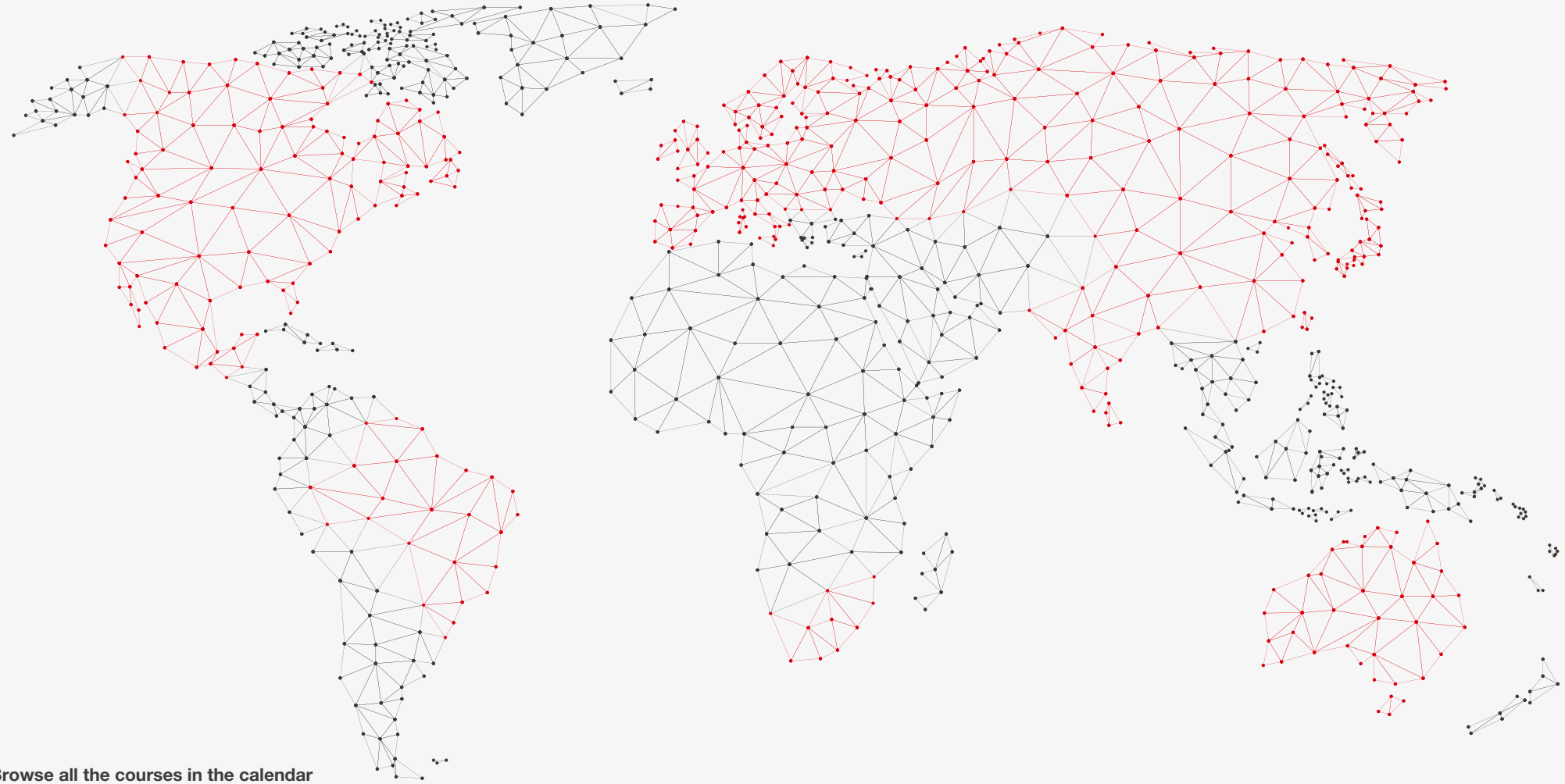
> Topics of the course

The available contents are related to the following modules:
B_Tools
B_Import

INFORMATION AND REGISTRATIONS

Registrations or enquiries can be made via the web or through direct contact with your local service facility.

You can find the nearest support service on the following webpage:
https://www.blmgroup.com/contact-us



Browse all the courses in the calendar on the following web page:
https://www.blmgroup.com/academy#calendario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