

STRUERS TPM PLUS COURSE

State-of-the-art facilities

Hands-on and
experienced instructors

Proven method to
take home

Courses offered in
your local language

The Professional Materialographer Plus is a three-day intensive basic course in materialography, combining theory and practical work in cutting, mounting, grinding/polishing, hardness testing, and microscopy. The last day is dedicated to the preparation of the participants' own material samples.

WHAT YOU GET FROM TPM PLUS

TPM Plus includes classroom lectures led by application specialists, covering materialographic topics from cutting to final analysis and hardness testing. Theoretical lectures are expanded into practical sessions where each materialographic topic is covered individually in exercises. During practical work, there is an opportunity for discussion with instructors and peers to get tips and tricks, improvement ideas, and the latest developments in equipment and consumables.

TPM Plus covers everything in TPM Basic, plus one day of intensive work with your own samples. During this work, the participants develop a customized, ready-to-use-method, build new theoretical knowledge, and get practical tips and tricks on how to improve preparation results and workflow in the lab.

TPM PLUS – THREE-DAY COURSE	
Theory in materialographic cutting	✓
Theory in materialographic mounting	✓
Theory in mechanical preparation	✓
Theory in electrolytic preparation	✓
Theory in microscopy and etching	✓
Theory in hardness testing	✓
Practical exercise in cutting	✓
Practical exercise in mounting	✓
Practical exercise in mechanical preparation	✓
Practical exercise in hardness testing	✓
Practical work on standard samples	✓
Method development on own samples	✓

HOW YOU BENEFIT/KNOWLEDGE FROM TPM PLUS

READY-TO-USE SKILLS

- Efficient learning about how to understand the latest theory in a practical context
- More confidence in the lab when improving work processes to save time and costs or to improve quality and safety

PREPARE FOR FUTURE CHALLENGES

- Increased practical knowledge improves decision-making around the implementation of new or improved materialographic processes and methods

DIRECT IMPACT IN OWN LAB

- See your own tasks in a new perspective
- See more details in your work
- Improve your own experience
- Implement small changes
- Improve process steps

REVEAL POTENTIAL IMPROVEMENTS

- Ideas about how to optimize your use of equipment and consumables
- Easier implementation of the latest techniques to save time and costs or to improve quality and safety
- Ideas and inspiration to improve your own methods

IMPROVED NEW METHOD

- Save time and costs by implementing improved methods
- Solve real sample preparation problems
- See high quality microstructure

USE OWN EQUIPMENT EFFICIENTLY

- Start using new features on your own equipment that will improve preparation results
- Use Struers' lab to develop new methods



STRUERS TPM COURSES

The Professional Materialographer (TPM) training focuses on improving results and processes by increasing knowledge, so that you can better solve new tasks or implement improvements.

In materialography, the topics in focus are understanding causes and effects in materialographic preparation and a structured approach to troubleshooting when artefacts appear. The courses also include hardness testing and and/or microscopy training to cover the entire materialographic process, from cutting to sample analysis and verification.

The TPM concept is based on a three-step “hear-see-do” learning principle, in which lectures are supported by both practical work and individual hands-on exercises.

		TPM APPLICATION COURSES				
		TPM LECTURES	TPM BASIC	TPM PLUS	TPM Advanced	TPM Own Samples
Included	Course duration	1 day	2 days	3 days	4 days	1 day
	Theory in materialographic cutting	✓	✓	✓	✓	
	Theory in materialographic mounting	✓	✓	✓	✓	
	Theory in mechanical preparation	✓	✓	✓	✓	
	Theory in electrolytic preparation	✓	✓	✓	✓	
	Theory in microscopy and etching	✓	✓	✓	✓	
	Theory in hardness testing	✓	✓	✓	✓	
	Practical exercise in cutting		✓	✓		
	Practical exercise in mounting		✓	✓		
	Practical exercise in mechanical preparation		✓	✓		
	Practical exercise in hardness testing		✓	✓		
	Practical work on standard samples		✓	✓		
	Method development on own samples			✓	✓	✓
	Theory in microscopy and contrasting				✓	
	Theory in structure analysis				✓	
	Troubleshooting in materialographic cutting				✓	
	Troubleshooting in materialographic mounting				✓	
	Troubleshooting in mechanical preparation				✓	
	Troubleshooting in electrolytic preparation				✓	
	Troubleshooting in microscopy and etching				✓	
	Troubleshooting in hardness testing				✓	

WANT A MORE CUSTOMIZED APPROACH?

Would your company benefit more from customized training, focusing on specific materials or equipment – perhaps delivered on your site? Or would prefer to have a Struers expert as a guide or knowledge source? Whatever you need, just ask. We offer customized training and events.

CUSTOMIZED APPLICATION SERVICES

Practical training

A Struers materialographic specialist provides on-site support, focusing on specific products, materials, and processes – for new and advanced users.

Webinars

Struers webinars are available every month, covering various topics related to the materialographic world, where the participants can ask questions to the Struers materialographic expert. If you can't participate, it is possible to log in to see the recordings of the previous webinars. Webinars are available from [struers.com/academy](https://www.struers.com/academy).

Workshop and product demonstrations

Equipment demonstrations and equipment trials are offered that familiarize managers and users with Struers equipment and consumables prior to a purchase decision.

Support and troubleshooting

Support and troubleshooting services are based on your specific requirements in connection with Struers equipment and consumables.

GUIDES AND TOOLS

Self-reliant professionals need guides and tools, which can be instantly found and used independently. We have created a number of guides, tools, and articles for self-study, available from [struers.com/knowledge](https://www.struers.com/knowledge).