

National Course Plan

University of Education Freiburg, Germany



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1. Summary

The German Training Prototypes are directed at teacher trainees in vocational education and in business education as well as at vocational students (within the German dual system).

Further on relevant staff of MSEs will be targeted with an adequate course offer.

Contents will be adapted to these groups: where students are directly targeted it will be basic level contents, as they are at the beginning of their vocational life. Where teacher trainees are targeted the conceptual background and didactical recommendations of the different learner journeys will also be included. MSE staff will be offered focused information about Cybersafety, i.e. cybersecurity and data protection.

Training settings for teacher trainees and students will be primarily on-site workshops using online as well as printed materials – as far as possible game-based and other interactive approaches will be used. In order to ease the participation of MSE staff the approach will be as asynchronous and as internet-based as possible.

2. Target group description

In the context of the training at University of Education Freiburg, there are mainly three different target groups to be considered:

The first target group are teacher trainees with a specific focus on those who plan to teach in vocational schools in Germany, mainly in business related subjects. These future teachers are learning how to educate students, including those who work part-time in small businesses during their studies.

Their regular training involves attending weekly seminars in different content related and educational subjects. During their training they usually also have internships at schools. MECyS workshops can be integrated in the regular course structure of the business and economics department of PHFR (University of Education Freiburg): mainly 'Anwendungsseminar Wirtschaft und Verwaltung' and/or 'Projektarbeit'. This can include additional self-learning parts.

The teacher trainees' knowledge of cybersecurity and data protection can vary, depending on their second subjects. Nevertheless, the vocational teacher trainees at PHFR usually have a good general knowledge of practical business issues, including Cybersafety.

They all speak German as they will be teaching in German later on, accordingly the MECyS workshops will be in German. As there is usually a good grasp of English certain materials and tools can also be used if in English.

These trainees must be able to teach at least the basic level. The training should be adaptable to accommodate different levels of their future teaching.

The second target group consists of vocational students within the German dual vocational education system. While they are already working in companies (MSE and bigger ones) they have in parallel schooling in different subjects at vocational schools. It will be dependent on the readiness of individual schools and teachers where MECyS can be introduced to this target group. There is an existing network of partners of PHFR that can be used to commit such instances.

These trainings are in German. This group cannot be considered to be of adequate proficiency in English to be trained with English materials and tools.

The third target group is staff of Micro and Small Enterprises (MSEs) within the context of PHFR. These MSEs can be reached through PHFR's connections with vocational schools that collaborate with MSEs. Individuals employed in MSEs can be regarded as a fairly diverse group in terms of their age, prior knowledge, overall experience in IT, and motivation. It is anticipated that this target group will have limited time for learning about Cybersafety (while increasingly recognizing its importance).

This target group can also be approached to use self-learning tools (not only from MECyS) to improve their Cybersafety knowledge.

3. Training setting

The training settings of the three groups are rather heterogeneous:

For teacher trainees:

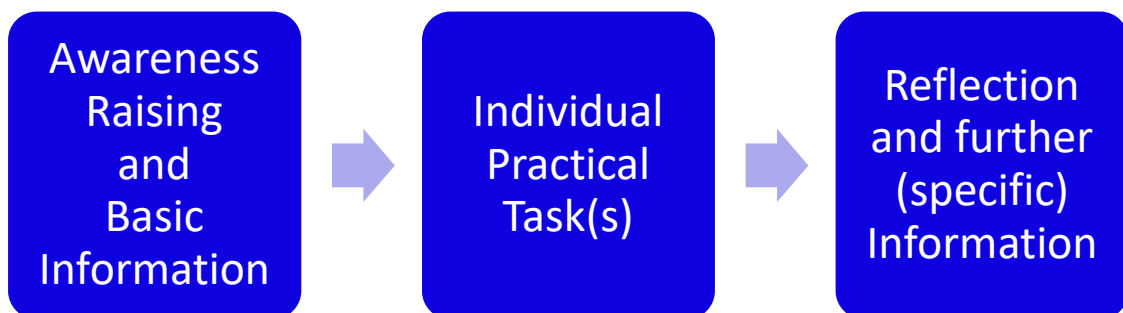
- 3 hour course (physical or online) to introduce the main issues and present potential materials and tools for themselves and for their students
- Lesson plan or something similar as homework
- 3 hour course (physical or online) to reflect on homework and to discuss content related and didactical questions that turned up during the work-phase

For students:

- Introductory lesson at school – guiding to:
- Online tools
- Feedback session – online or physical

For MSEs:

- 2 hour online course to assess individual circumstances, to present current developments and to guide to adequate materials and tools
- Homework: development of a small set of actions to improve Cybersafety at one's MSE
- 2 hour online course to reflect on homework and to discuss content related and didactical questions that turned up during the work-phase

Overall Structure:

4. Learner Journey(s)

What?

Target Group 1 – Teacher Trainees: General Principles of Cybersafety up to the Advanced Level (HARE)¹ including didactical approaches to teach Cybersafety.

Target Group 2 – Vocational Students: Beginner Level (Turtle) to act responsibly in their – current and future – work space.

¹ <https://mecys.eu/wp-content/uploads/2023/09/Training-Plan-September-2023.pdf>

Target Group 3 – MSE staff: Up to Intermediate Level (Mouse) in accordance with their specific requirements.

How?

In general, synchronous phases will be strongly interactive with practical tasks and sufficient time for discussion.

Asynchronous phases will be based on MECyS tools and materials (e.g. FHNW games and bots) matching the different levels of learning objectives.

Why?

Target Group 1 – Teacher Trainees: preparation for educating students for more and more digitalized work spaces (and private lives).

Target Group 2 – Vocational Students: preparation for responsible and self-reliant work-life.

Target Group 3 – MSE staff: support for handling practical business issues in the fields of cybersecurity and data protection.

When?

Pilot courses for one or the other target group will be held during the first half of 2024. In the following 'regular' courses will be held and tested.

Exemplary lesson structure of synchronous phases

Format	Goal	Method
Plenary	Ice-Breaker	Game on how well you think your cybersecurity/data protection knowledge is
Individual work	Assessment of knowledge	Using online-website to assess knowledge
Plenary	Conveying of basic CS threats and measures	Presentation, interaction with participants
Group work	Safe browsing measures	EER on CS, or another online-game in groups

Plenary	Reflection	Discussions and reflexions on experiences and on measures to take in the future
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5. Conclusion

As a teacher training institution PHFR the approach to MSEs is more indirect via becoming vocational teachers and vocational students that can transfer awareness and knowledge into the companies they work.

Nevertheless PHFR will reach out to MSEs for direct training and advertising self-learning materials and tools.

PHFR will also approach regular business training institutions like e.g. chambers of crafts and commerce to cooperate on the issue, which is on their agenda as well.

The finalized English version of the German National Course Plan was to basically align the Course Plans of the MECyS partners. Further developments will be done in the German version.



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