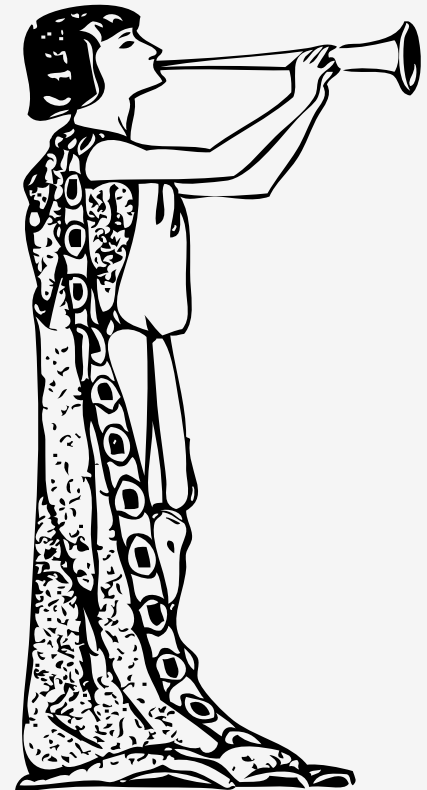


Schlüsselkompetenzen (SKO) fürs Studium

0. Announcements

Prof. Dr. Uwe Aßmann
Softwaretechnologie
Fakultät Informatik
Technische Universität Dresden
2024-0.1, 9/30/24
<http://st.inf.tu-dresden.de/teaching/sko>

- 1) Outline
- 2) Literature





*Key
Competencies*

0.1. Kurs Schlüsselkompetenzen fürs 1. Studienjahr Inhalt und Ziele

Prof. Uwe Aßmann

TU Dresden

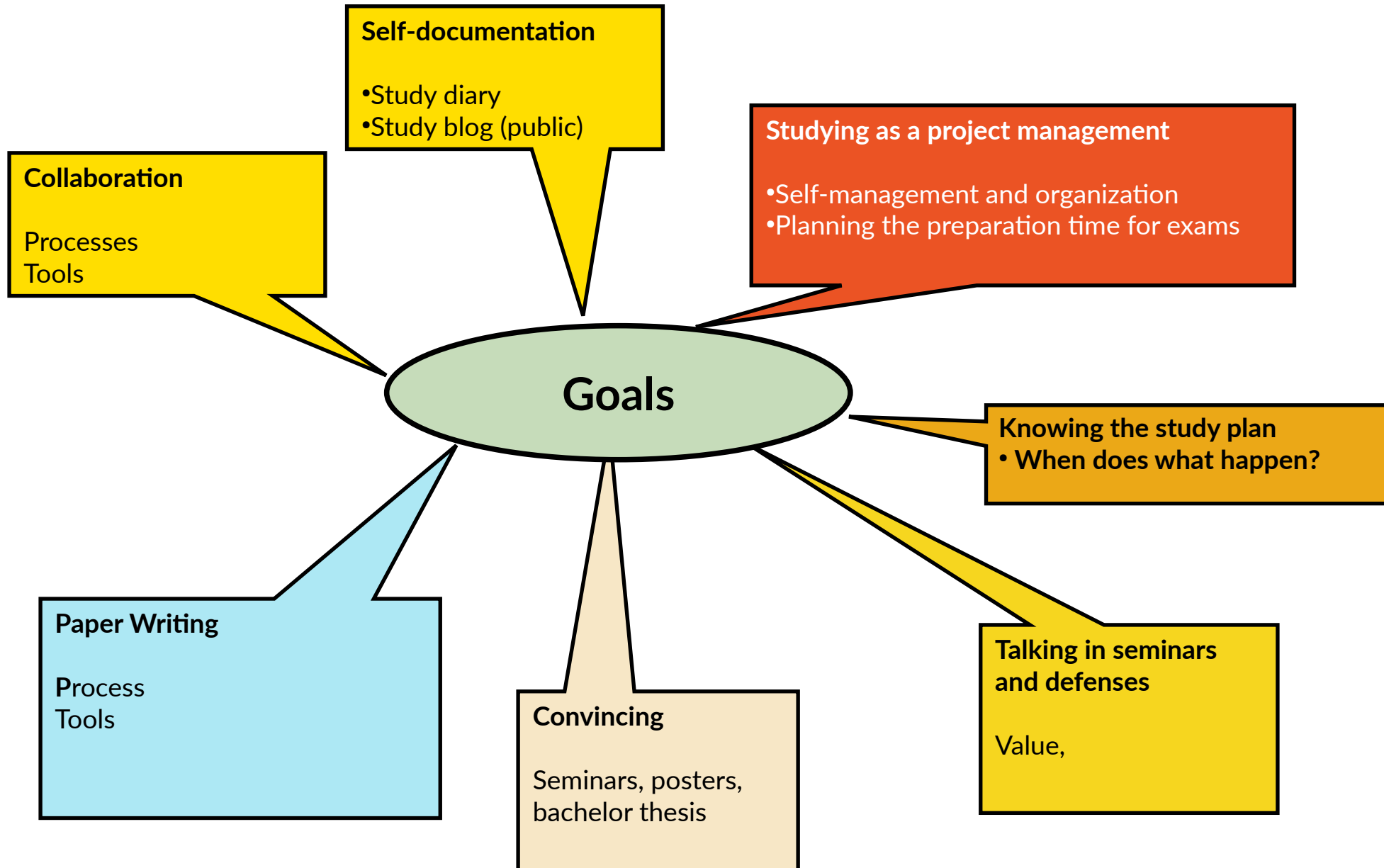
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Objectives of the Course

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Schlüsselkompetenzen (SKO)



Contents SKO/INF-24-G-SK, WS24/25+SS25

4 Schlüsselkompetenzen (SKO)

			Parts	
I	WS	Oct, Nov	Study management, and Group Collaboration	
II	WS	Dec, Jan	Paper writing	
III	SS	Apr, May	Convincing	
IV	SS	Jun,Jul	Reporting	

I	WS	Study management and group collaboration (Oct, Nov)	
1	v	Self-management, study management, and project management. Personal study diary blog in Markdown.	Software tools for self-efficiency. Composition systems for self-efficiency. The Shell as composition system. Deriving files from original files with the shell (build management). "The missing semester".
2	ü	Agile work and Collaboration in Teams with git (siehe) and gitlab Chemnitz	Seminargruppen in gitlab Chemnitz. Versioning the Study Blog in gitlab Chemnitz
3	v	Techniques of self study and lecture afterprocessing	Reading, clustering, questioning, group work, lecture maps). Tool support. plantUML and other tools. Modeling tools and Jupyter notebooks
4	ü	Artemis und Gitlab pipelines, shell-based build management für Dokumenten/hypermedia, svg management, LibreOffice; OnlyOffice/cloud	
5	v	Self management with gitlab issues; course management git portal in Chemnitz; cloning for personal study plan	
6	ü	Web documentation of your study diary, study projects with markdown, hugo and SSG	

II	WS	Paper writing (Dec, Jan)	
7	ü	Writing and managing your own study plan in markdown, with gitlab	
8	v	Introduction to the ADED research process for seminars, proseminars, papers, bachelor and master's thesis (literature analysis, design, evaluation, diffusion)	
9	ü	Searching with literature search engines and AI engines, zotero	
10		Different reports in Bachelor study (literature search, outlining, theses)	
11	ü	Shell programming on all platforms, compilation etc.	
12	v	Active documents with LaTeX and overleaf for paper writing	
13	ü	Git merge conflict handling	
14	v	Advanced LaTeX (referencing, indices, glossaries, reviewing, macro generation from spreadsheets)	

III		Convincing (April, May)	
1	v	Presenting and talking interestingly in seminars; talking with video taping; Hooks in talks and papers	
2	ü	Slides in LaTeX and other tools	
3	v	Value proposition analysis for ideas and opportunities	
4	ü	Writing a One-Pager with NABC or POPP to convince your audience (writing a proposal for an initiative)	
5	v	Writing a short paper about your self-management process	
6	ü	Feature toggling as an agile evolution process and its git workflow; Feature toggling with LaTeX	

IV		Reporting (June, July)	
7	v	Writing a bachelor or Master's thesis and short exposé. Setting up an outline of the bachelor exposé in overleaf with LaTeX	
8	ü	Git Refactoring branches and quilt/topgit branches für kollaborative Dokumenterstellung	
9	v	Organizing Poster of your study project with NABC, and demonstrations of your work	
10	ü	Writing an instruction web-based cook book (programming, cook book, etc.) with stack-overflow, etc.	
11	v	Basic and Technical Science; Computer Science and Software Engineering	
12	v	Basic science ethics of work	
13	v	Writing interestingly and fluently	



0.2. Literatur/Web Sources

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- ▶ <https://missing-semester-de.github.io/> MIT Kurs für Software Tools
- ▶ www.fishshell.com - the ultimate source for information about the fish shell
- ▶ Abstimmung mit Seminargruppen nötig
- ▶ Musterlösungen
- ▶ Filme
- ▶ Tutorien?

Teachful Procrastination: To be Happy About

- ▶ <https://www.youtube.com/@TypeAshton>
- ▶ Speicherkraftwerk Thiendorf <https://www.youtube.com/watch?v=zagwNfUDTbQ>
- ▶ Magnet Rail <https://www.youtube.com/watch?v=DGG9YH1XOYI>
- ▶ Stadler RS <https://www.youtube.com/watch?v=b7aF5gD1ic8>
- ▶ ECTS <https://www.youtube.com/watch?v=LpdtdWFzM94>
- ▶ Rebecca Elisabeth <https://www.youtube.com/@RebeccaElizabeth>
 - Lernmethoden https://www.youtube.com/watch?v=-XXsRFk8_K8&t=606s
- ▶ Selbststudium https://www.youtube.com/results?search_query=selbststudium
- ▶ Berufung <https://www.youtube.com/watch?v=m1FsoF64Xrk&list=PLHiUCu-r22N8dLM6LvbzvevcER2knId3L&index=5>
- ▶ Alles ist schwer bevor es leicht wird <https://www.youtube.com/watch?v=GXypjl70bOc>

Kommentäre (bitte ergänzen)

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Schlüsselkompetenzen (SKO)

- ▶ Abstimmung mit Seminargruppen nötig
- ▶ Musterlösungen
- ▶ Filme
- ▶ Tutorien?
- ▶ gitlab in Chemnitz
 - Einschränkungen? Skalierung?

How Much Time to Spend?

		Time
Semester	3cp	90h
Weeks in Semester	27 (14 WiSe+13 SoSe)	1,5h (lectures)
		1,8h= 108min (self study)
		3.3h (total)



*Key
Competencies*

0.3. A Minimal Software Infrastructure for the Course SKO

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Git on Windows

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Schlüsselkompetenzen (SKO)

- ▶ download git for windows according to the following web page
 - <https://git-scm.com/download/win>
- ▶ Install a modern package manager, e.g., <https://chocolatey.org/>

Mint Linux aside of Windows

- ▶ Website <https://www.linuxmint.com/download.php>
- ▶ Create a bootable USB stick <https://linuxmint-installation-guide.readthedocs.io/en/latest/burn.html>
- ▶ Boot from the USB stick <https://linuxmint-installation-guide.readthedocs.io/en/latest/boot.html>
 - The “live” instance can be used directly, and it will keep your computer clean
- ▶ But you also can do an installation <https://linuxmint-installation-guide.readthedocs.io/en/latest/install.html>
- ▶ see introductory video <https://www.youtube.com/watch?v=DDtMTVW1U4s>

The End

- ▶ How do I install a package with the package manager brew?

The End

- ▶ How do I install a package with the package manager brew?