

The fhjcommon package*

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Abstract

Collection of common macros for the FHJ bundle independent of a chosen document class.

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1 Configuration

1.1 Used Packages

```
1 \usepackage{
2 \RequirePackage{xstring}
3 \RequirePackage{ifthen}
4 \RequirePackage{calc}
```

2 Naming definitions

\FHJ One goal of this package is to provide common naming definitions which can and should be used in all documents which are created in the context of *FH JOANNEUM*. This includes the naming of the university (\FHJ), the study programs and their long and short names.

*This document corresponds to fhjcommon v4.3, dated 2026-07-30.

2.1 Study program specifics

`\FHJProgram` It is assumed that the documents which are generated are created in the context of a given study program. To set the study program for the given document use the macro as following:

`\FHJProgram{<code>}`

This updates what `\FHJProgramLong` and `\FHJProgramShort` expand to – the long and short name registered for `{<code>}`. Passing an unregistered `{<code>}` raises a package error listing the currently known codes. `\FHJProgram` also accepts ITP, which is not a study program but refers to the institute itself – see the remark at the end of this subsection.

`\FHJProgramLong` and `\FHJProgramLong[<code>]` and `\FHJProgramShort[<code>]` expand to the long and short name of the currently set study program. Given the optional `[<code>]`, they first call `\FHJProgram{<code>}` – switching the study program for the rest of the document – and then expand to its long/short name; this is convenient for setting and using the study program name in a single place, without a separate `\FHJProgram` call beforehand.

`\FHJDefineProgram` Study programs are registered in a small table, keyed by a `{<code>}` that stays stable for a program’s lineage while it may carry a year suffix marking when a given name *first became official* (e.g. IMS-26) – this is not a student cohort year. New codes are registered with

`\FHJDefineProgram{<code>}{<short name>}{<long name>}`

`{<code>}` may contain letters, digits and hyphens. The `{<short name>}` is stored separately from `{<code>}` on purpose – a code’s year suffix should not leak into the displayed short name, so e.g. both DAT-22 and DAT-25 use the short name DAT. For example `\FHJDefineProgram{AIM-27}{AIM}{Applied Computer Science}` registers AIM-27 so that `\FHJProgram{AIM-27}` afterwards sets `\FHJProgramShort` to “AIM” and `\FHJProgramLong` to “Applied Computer Science”. This is the intended extension point for future study programs: maintainers or downstream users can call `\FHJDefineProgram` for a new program without editing `\FHJProgram` itself, as long as the call happens before `\FHJProgram` is used. The code ITP is reserved for the institute (see below) and cannot be registered this way.

Registered `{<code>}` values are currently:

```
5 \FHJDefineProgram{DAT-22}{DAT}{Data Science and Artificial Intelligence}
6 \FHJDefineProgram{DAT-25}{DAT}{Data Science and Artificial Intelligence}
7 \FHJDefineProgram{AIM-22}{AIM}{Business Informatics}
8 \FHJDefineProgram{AIM-27}{AIM}{Applied Computer Science}
9 \FHJDefineProgram{IMS-24}{IMS}{IT and Mobile Security}
10 \FHJDefineProgram{IMS-26}{IMS}{Cybersecurity and Ethical Hacking}
```

ITP is not a study program but refers to the institute itself: calling `\FHJProgram{ITP}` (or `\FHJProgramShort[<ITP>]`/`\FHJProgramLong[<ITP>]`) sets `\FHJProgramShort` to `\FHJInstitute` – tracking its *current* value rather than a snapshot – and `\FHJProgramLong` to a fixed “Institute for Information Technology+” (both handled inside `\FHJProgram` above).

3 Legal declarations

Further important macros are the legal declarations which are required to be included in the master thesis. These declarations ensure compliance with the legal requirements of FH JOANNEUM.

`\FHJMakeDeclaration` Normally these declarations should be placed on a single page – therefore we run a `\cleardoublepage` before and after the declaration. The macro `\FHJDeclaration` is also taking care of the language and will automatically switch to the appropriate language based on the current language setting of the document. We currently support *ngerman* and *english* as languages. The declaration text itself is defined in both German and English and could be typeset with `\FHJDeclarationDE` or `\FHJDeclarationEN` respectively without any page clearing.

4 Exercises

The class provides a set of macros to define exercises or exams and according examples for lectures. To be able to create the header you will need to redefine the following macros.

`\FHJClassAbbr` To simplify the generation of the header for exercises we provide a set of macros which can be redefined to customize the appearance of the header.

`\FHJLecturer`

```
11 \newcommand{\FHJClassAbbr}{RUL}
12 \newcommand{\FHJClassTerm}{WS 2025-26}
13 \newcommand{\FHJLecturer}{Lisa Musterfrau}
```

4.1 Exercise headers

`\FHJExHeader` The header is actually generated with the macro `\FHJExHeader{<type>}{<number>}{<topic>}` which takes two arguments: the type of the exercise (like “Exam”, “Exercise” or similar), exercise id and the topic and may look like this using the macro with `\FHJExHeader{Exercise}{1}{\LaTeX}` with above default definitions:

RUL (Data Science and Artificial Intelligence)	
FH JOANNEUM	
Lisa Musterfrau	
Exercise Exercise: 1	WS 2025-26
$\LaTeX$	

`\FHJExHeaderScheduled` Additionally we defined the macro `\FHJExHeaderScheduled{<exercise id>}{<topic>}{<date>}` which takes an additional argument for the date which would produce the following example:

RUL (Data Science and Artificial Intelligence) FH JOANNEUM Lisa Musterfrau	
Exercise Exercise: Exercise	WS 2025-26
1a Exercise Exercise (1a) to be solved till $\LaTeX$ Remark: The Exercises have to be handed in on Moodle on the target day until 23:59. 2025-08-13	

4.2 Example section

`\FHJExExample` To generate the examples themselves you may want to use the macro `\FHJExExample[<points>]{<title>}` which will generate by using `\FHJExExample[<99>]{<An amazing challenge!>}` the following section:

Example Exercise.1: An amazing challenge! (99 Points)

The section counter will be incremented automatically and the major number is always equal to the exercise id which is set by previous call to `\FHJExHeader` or `\FHJExHeaderScheduled`.

4.3 LLM usage

`\FHJExLLM` We have formulated a default statement for exercises on how to treat LLMs (Large Language Models) in the context of the FHJ. This is not an "official" statement from FHJ - it is more a guideline for students and lecturers on how to approach the topic.

Usage of LLMs: You are permitted to use LLMs (AI assisstants) to support your work on the exercises. Please note, however, that the use of LLMs is not allowed during assessments. Ensure that you thoroughly understand your solutions and can reproduce them independently without assistance from LLMs.

Change History

v4.0		and <code>\FHJIMSShort</code> 1
	General: Initial package version . . . 1	
v4.3		Study programs moved to a data table registered via <code>\FHJDefineProgram</code> ; added Applied Computer Science, Business Informatics and Cybersecurity and Ethical Hacking 1
	General: <code>\FHJProgramLong</code> and <code>\FHJProgramShort</code> take an optional <i><code></i> that sets the study program inline 1	
	Removed <code>\FHJDATLong</code> , <code>\FHJDATShort</code> , <code>\FHJIMSLong</code>	