3 - 8 MARCH 2025
ONE-WEEK MODULE

Digital Innovation Lab

Choose one of the following three options:

- Programming
- Intrapreneur –

Code:	M-DTB
Prerequisites:	none
Name of lecturer:	Prof. Michael Höbig, Cindy Kubsch
Language of teaching:	English
Workload:	48 contact hours
ECTS credits:	5
Examination method:	Ungraded Component including Pitch Presentation

_____ (subject to change):

Cindy Kubsch   Design Thinking / Storytelling

Name of lecturer: M.A. Rahimi
Language of teaching: English
Workload: 48 contact hours
ECTS credits: 5
Examination method: Ungraded Component including Presentation

Mobile apps are used everywhere like in manufacturing control systems, marketing and campaign management as well as healthcare information systems, financial services and many other places. They play an increasingly important role in the daily usage of the internet and internet services; therefor app programming is becoming an ever more important skill.

The Deep Dive seminar discusses object-oriented programming and dives into Dart and the Flutter Development Environment. Students will learn how to set-up a Dart programming environment and to write, compile and run simple Dart programs.

Code:	M-DTB
Prerequisites:	none
Name of lecturer:	Ulf Köther
Language of teaching:	English
Workload:	48 contact hours
ECTS credits:	5
Examination method:	Ungraded component including presentation

For many enterprises the collected organizational data represents one of their most vital assets, either to closely monitor and improve their business processes or even as a basis for developing new products and business opportunities. But there are many obstacles to overcome, e.g., the sheer volume of data that some companies collect from many different sources, which requires a common data management and analysis strategy that needs to be designed carefully. Experience shows that it's worth the time spent to make sure the core data assets of the organization are managed effectively.

The Deep Dive seminar will serve to set up an R programming environment and write and run simple programs using R as a programming language for statistical computing and graphics.

Finally, the Implementation Workshop will serve to demonstrate the ability to analyze data with R in practice. Students will analyze a given data set, define a research question which they want to answer using it, and write a small reproducible report in presentation format using R and markdown.

Students need to bring their own laptop to the course, on which they must be able to install software (administrator access). If this is not possible, please contact the lecturer at least one week before the first day of the course to discuss possible workarounds.

Full-time week (Monday to Saturday), 04.-09.03.2024 (9:30-16:45 o'clock) = 48 h total

When completed, this profile enables students to

» discuss how one can gain value using data science and business intelligence.
» describe basic concepts of data mining, machine learning and reproducible research.
» write and run simple programs using R.

» read a data set into R, analyze it, and write a small reproducible report in presentation format using R and markdown.