Hallo

Guten Morgen

Servus

Grüß dich

Guten Tag

Grüß Gott

griaß di

Degree starter programme 2021
Bachelor's degree programme in Applied Artificial Intelligence

Head of Degree Programme, Prof. Dr. Marcel Tilly
marcel.tilly@th-rosenheim.de

First Interaction

Quick Poll

- **What do think? How old is AI?**

A. less than 10 years

B. ~ 30 years

C. > 50 years

Artificial Intelligence

Short History

- **1940 – Alan Turing – *The Imitation Game***
- 1943 - Walter Pitts and Warren McCulloch - *Neuron*
- **1956 – John McCarthy et. al. – *AI Summerschool***
- ***1966 – Joseph Weizenbaum (MIT) ELIZA***
- 1989 - Yann LeCun – Digits recognition
- **1997 - Deep Blue versus Garry Kasparov**
- **2011 – AndrewNg – The Cat Experiment**
- 2015 – Human parity in Speech Recognition

Applied Artificial Intelligence (AAI)

A short introduction to AAI

Simulation of human thought processes to **recognize, evaluate, analyze, learn and make decisions** most likely in large amounts of information

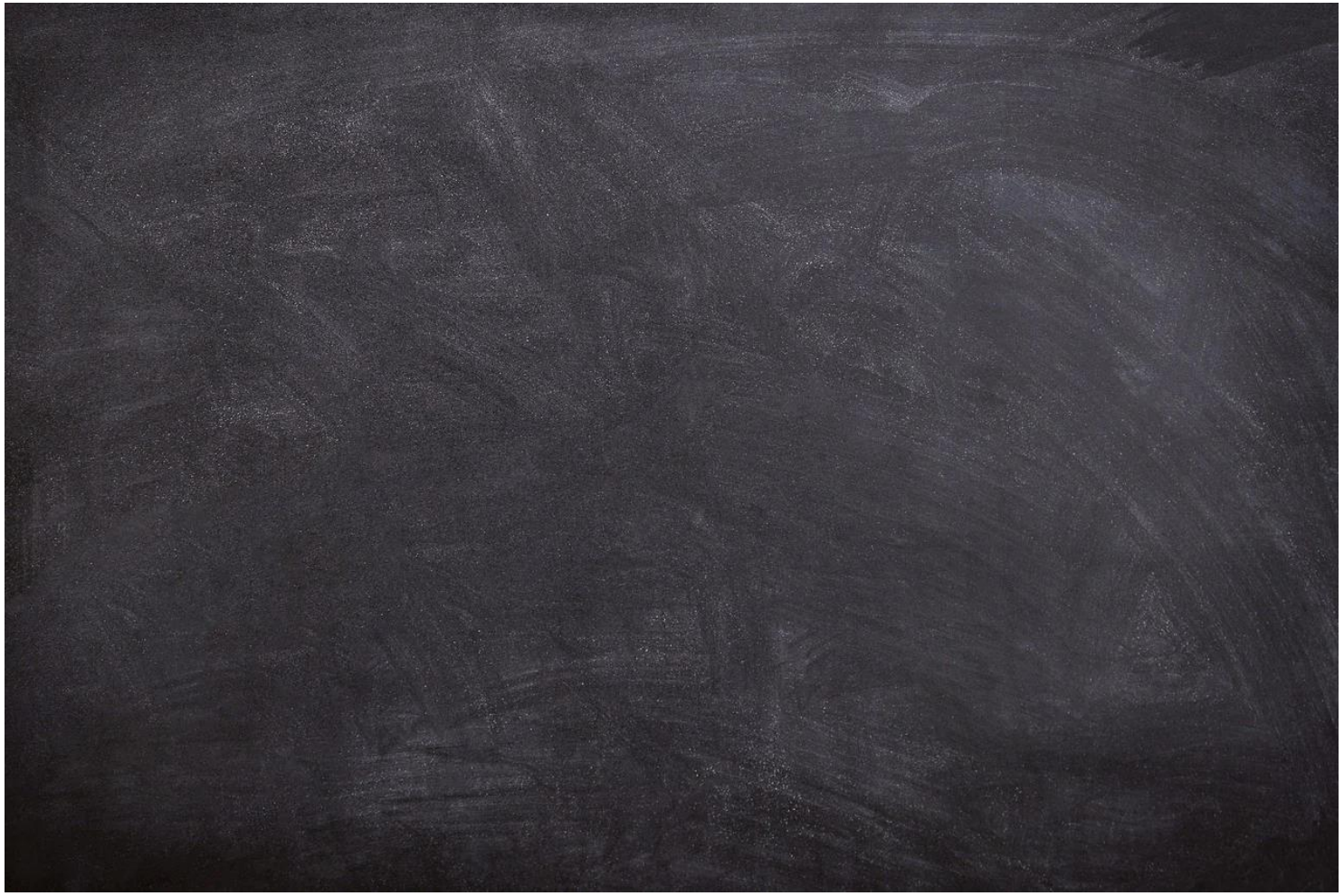
Alle Bilder: Shutterstock

Making the world a better place

 Medical research Climate protection Space and marine research Production Art ... and much more

Applied Artificial Intelligence (AAI)

Let's collect some applications!



Applied Artificial Intelligence (AAI)

Bilder: Shutterstock

Current applications of AI

- Virtual assistants (Echo, Siri, ...)
- Navigation
- Search engines
- Translator
- Spam-Filter
- Detection of prohibited content
- Recommendations in marketing and sales
- Autonomous driving
- Cancer recognition

... and many more!


THE CONVERSATION
How AI
Logan B
Mar 26,
ATURED
ultural Calendar

Why AAI?

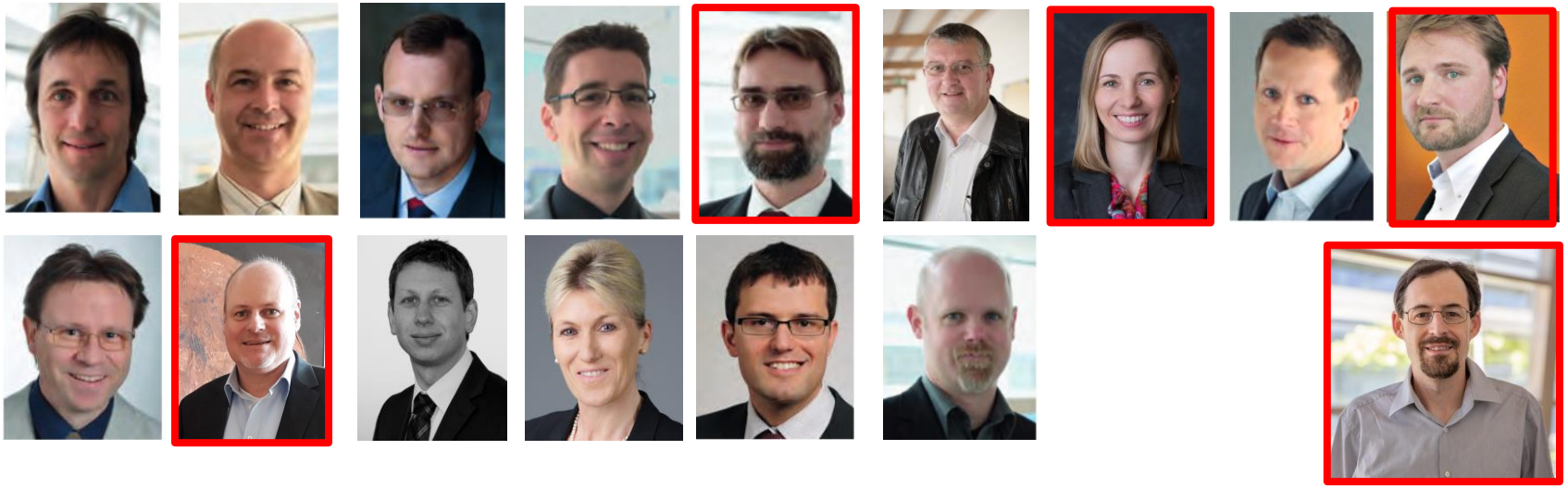
- **Shaping the future**
  - Artificial intelligence and digitalization are certainly among the most important technologies of the future and are key to success in the employment market.

- **Good job opportunities**
  - Numerous national and international IT firms are based here.
  - Data Sciences, ML engineer, MLOps, etc.

- **Broad education**
  - Machine Learning, Data Science, Deep Learning, Big Data, Cloud Computing, Robotik, Mathematik, Software Engineering

We introduce ourselves

- ***Professors***



- ***Staff***

Student Engagement

- You can **influence** of what happens at the faculty.
- Get involved as a **student representative!**
  - Go to person of the students to communicate with the professors
- Who wants to run it?
  - Propositions to Mrs. Bischof
  - Ewelina.Bischof@th-rosenheim.de
- Regular calls/meetings with us!

Contact persons (1)

- **Dean of the Faculty of Computer Science**
  - Prof. Dr. Reiner Hüttl
  - Reiner.Huettl@th-rosenheim.de
  - Head of the Faculty of Computer Science

- **Head of Degree Programme** AAI
  - Prof. Dr. Marcel Tilly
  - Marcel.Tilly@th-rosenheim.de
  - Conception, planning and organizing the degree programme

Contact persons (2)

- **Central Student Advisory Office**
  - Ursula Anglhuber
  - studienberatung@th-rosenheim.de, A2.20
  - Difficult study situations, leave of absence, illnesses, change of course of study, mediation of further contact persons, etc.

- **Academic Advising**
  - Prof. Dr. Wolfgang Mühlbauer
  - Wolfgang.Muehlbauer@th-rosenheim.de
  - Crediting of modules, organization of computer science studies, legal questions about studying

- **Head of Examination Board**
  - Prof. Dr. Kai Höfig
  - Kai.Hoefig@th-rosenheim.de
  - Decides on student applications, e.B. application for extension of deadline or crediting of modules

Contact persons (3)

- **Secretariat**
  - Manuela Huber
  - Manuela.Huber@th-rosenheim.de, **A0.04**
  - Dean's Office Secretary
  - Central contact person for matters that affect the entire faculty.

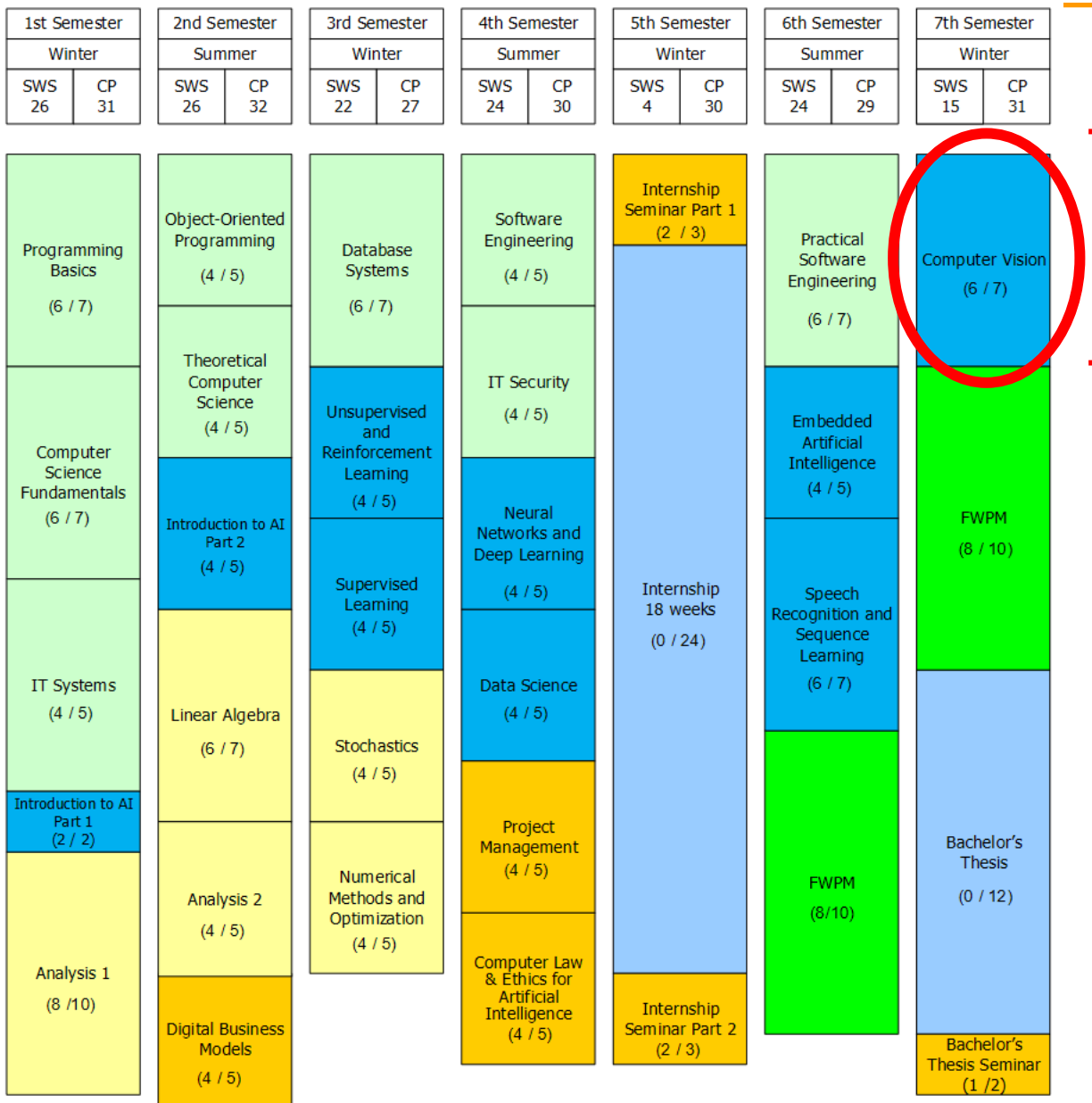
- **Programme Coordinator**
  - Ewelina Bischof
  - Ewelina.Bischof@th-rosenheim.de, **B0.15**
  - Central contact person for matters concerning the degree programme, quality assurance of degree programmes, timetables, module manuals, accreditation

- **International Office**
  - Lisa Göbl
  - Lisa.Goebl@th-rosenheim.de, **R2.22**
  - Support for international students

Programme Overview - Basics

- **Module**
  - 1 learning unit
  - „Types “: Lecture, Internship, Seminar, Bachelor Thesis, …
- **Compulsory module**
  - Must be occupied.
  - In the first 4 semesters mainly compulsory modules
- **Specialist Required Elective Modules (FWPM)**
  - Modules with various topics
  - Freely selectable during the course of study
  - At the earliest from the 3rd semester of study
  - Check the module handbook
- **Credit Points (CPs)**
  - Each module has a fixed number of CPs: usually 5 or 7
  - If the module examination is passed (at least grade 4.0), CP will be credited.
  - 210 CP required for Bachelor's degree

Programme Overview SPO 2021



Example:
1 Modul
6 SWS (**contact hours**),
7 Credit Points (CP)

Modul (SWS / CP) — CP

CP Credit Points
BA Bachelor's Thesis
SWS Semesterwochenstunden

- Artificial Intelligence
- Computer Science
- Mathematics
- Compulsory Elective Modules
- Internship and Bachelor's Thesis
- Core Competencies / Soft Skills

More food for thoughts

- Create your own profile by choosing FWPM modules

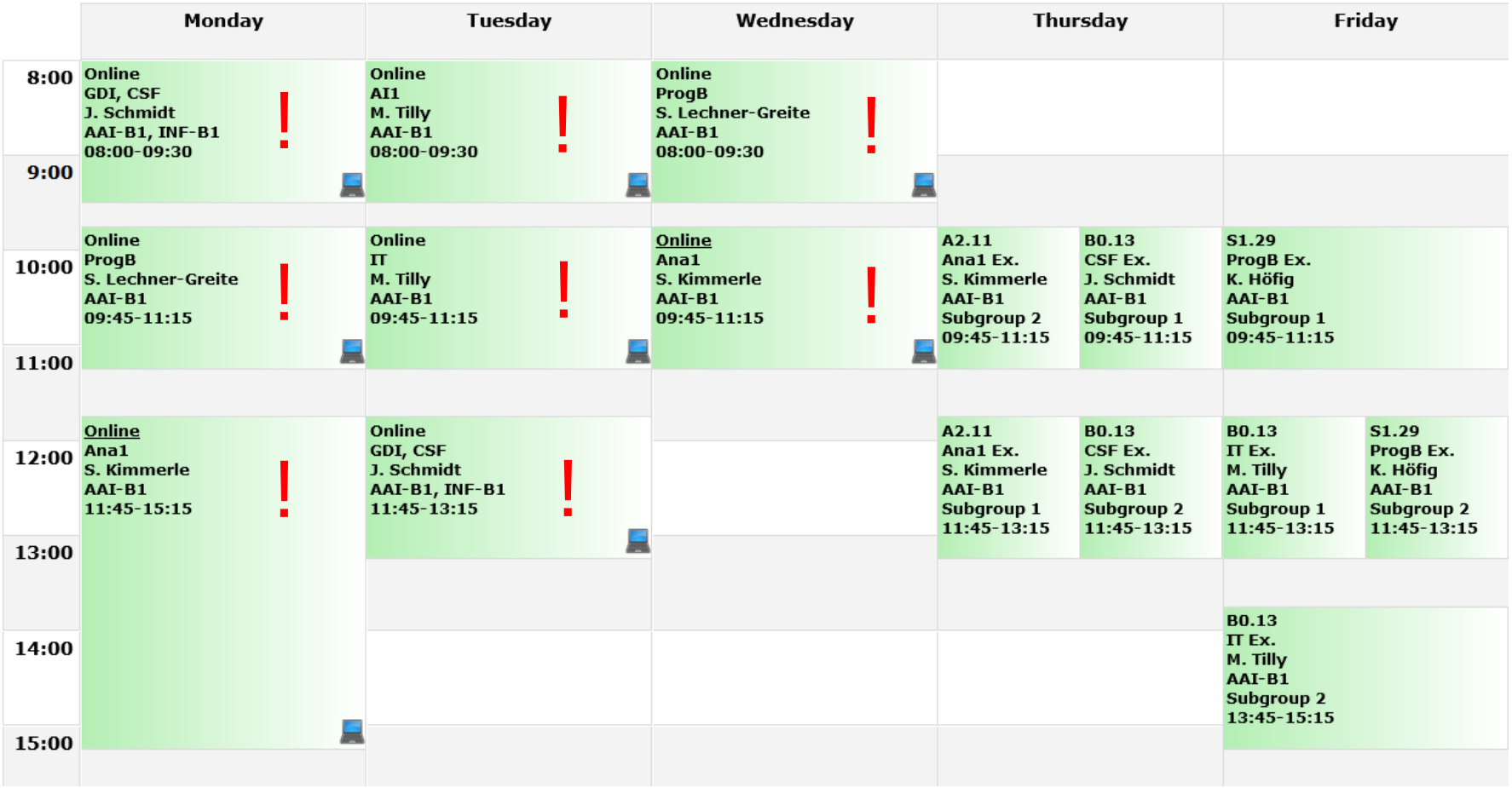
- **Practical Semester (Internship)**
  - Hands-on-Experience: 18 weeks within a company
  - Addtional: 2 weeks of accompanying lectures (soft skills)
  - Ideally during the winter semester
  - More about it in 4th semester

- **Bachelor Thesis**
  - After internship and >= 160 CP
  - Duration: 5 months

- **Information** (examination regulations, study regulations, curriculum):
  - https://www.th-rosenheim.de/en/technology/computer-science-mathematics/applied-artificial-intelligence-bachelors-degree/course-structure

Plan 1st semester

- https://splan.fh-rosenheim.de/splan/



	Monday	Tuesday	Wednesday	Thursday	Friday	
8:00	Online GDI, CSF J. Schmidt AAI-B1, INF-B1 08:00-09:30 !	Online AI1 M. Tilly AAI-B1 08:00-09:30 !	Online ProgB S. Lechner-Greite AAI-B1 08:00-09:30 !			
9:00						
10:00	Online ProgB S. Lechner-Greite AAI-B1 09:45-11:15 !	Online IT M. Tilly AAI-B1 09:45-11:15 !	Online Ana1 S. Kimmerle AAI-B1 09:45-11:15 !	A2.11 Ana1 Ex. S. Kimmerle AAI-B1 Subgroup 2 09:45-11:15	B0.13 CSF Ex. J. Schmidt AAI-B1 Subgroup 1 09:45-11:15	S1.29 ProgB Ex. K. Höfig AAI-B1 Subgroup 1 09:45-11:15
11:00						
12:00	Online Ana1 S. Kimmerle AAI-B1 11:45-15:15 !	Online GDI, CSF J. Schmidt AAI-B1, INF-B1 11:45-13:15 !		A2.11 Ana1 Ex. S. Kimmerle AAI-B1 Subgroup 1 11:45-13:15	B0.13 CSF Ex. J. Schmidt AAI-B1 Subgroup 2 11:45-13:15	B0.13 IT Ex. M. Tilly AAI-B1 Subgroup 1 11:45-13:15
13:00						
14:00						B0.13 IT Ex. M. Tilly AAI-B1 Subgroup 2 13:45-15:15
15:00						

! Online

General Information

1. Corona: “Back to normality”
   a) **Lectures online:**
      - Either via video streaming (Zoom, BigBlueButton, …) or offline video via YouTube or other tools
      - Teaching concepts of the modules can be different!
   b) **Exercises at the university**
      - Attendance Days: Thursday and Friday
        – Interaction with lecturer and other students essential!

2. You can find specific information in **Learning Campus:** **https://learning-campus.th-rosenheim.de**

3. **Deviations in the first week of lectures**
   a) Some exercises do not start until the 2nd week
   b) Please note the *timetable* and *Learning Campus*!

Exams

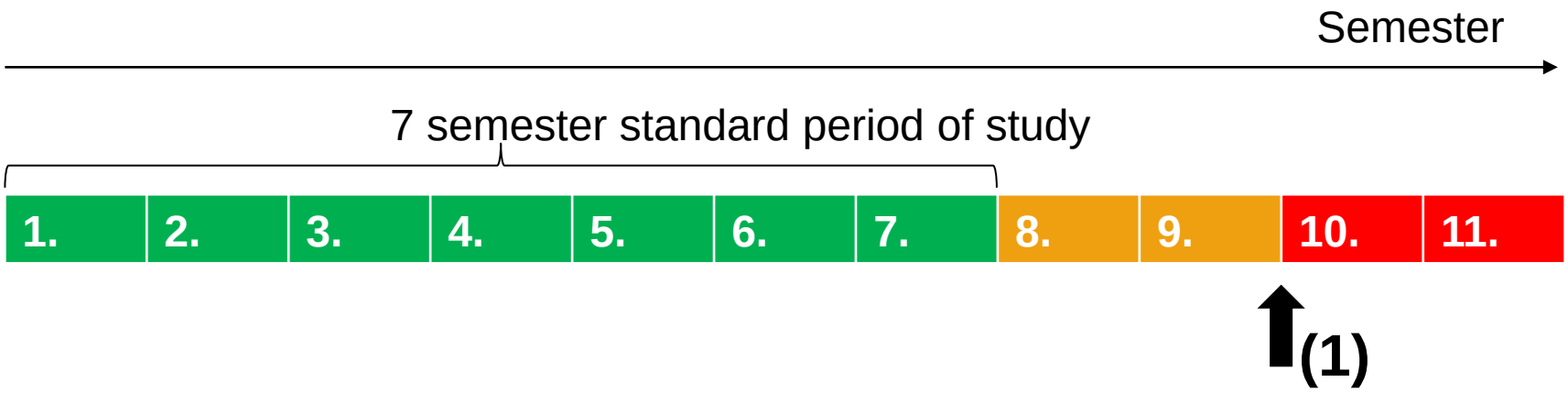
Deadlines without guarantee!

- In first semester mainly written exams!
- **Registration is mandatory:** 01.11.2021 – 08.11.2021
  - Online Service Center
  - Withdrawal from exams: If you do not show up or you are not registered!
  - You are automatically registered for the next exams if you failed the last time.
- **Examination period:** 26.01.2022 – 12.02.2022
- **Re-examinations**
  - Max 2 repetitions
  - A third approach is allowed in max 4 courses
- Examination law is complex!
  - More details on **Monday, 25. Oktober, 17:00 Uhr via Zoom**
    - Presentation for 1. semester on exams.

Examination Regulations

- Rights and obligations of the student
- Regulations (unfortunately) scattered across several laws

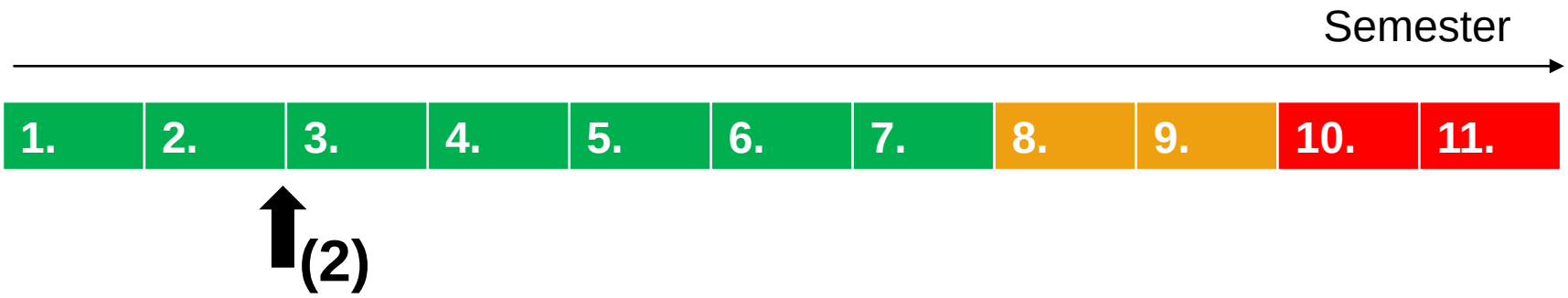
Examination right: Maximum duration of study



- Student has already studied 9 semesters.
  - 2 semesters more than the standard period of study of 7 semesters.
  - RaPO, §8, Absatz 3

- **Consequence: All missing modules are considered failed for the first time**.
  - Compulsory registration in the following 10th semester.
  - You can't study forever!

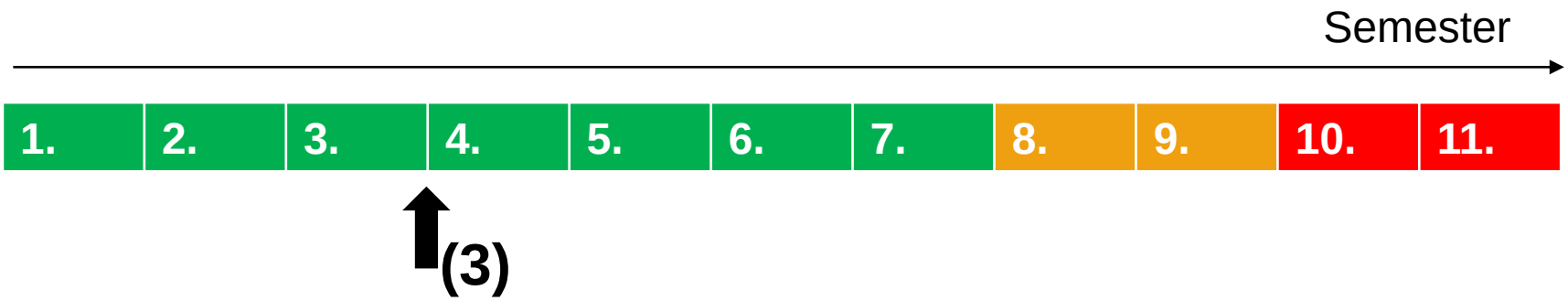
Examination Law: Basic Modules



- After 2 semesters, the following modules must be passed.
  - Programming Basics
  - Computer Science Fundamentals
  - Analysis 1

- **As a result,** these basic modules cannot be "pushed" endlessly. If you do not try it in the 2nd semester, you are considered to have failed for the first time and are compulsorily registered in the next semester.

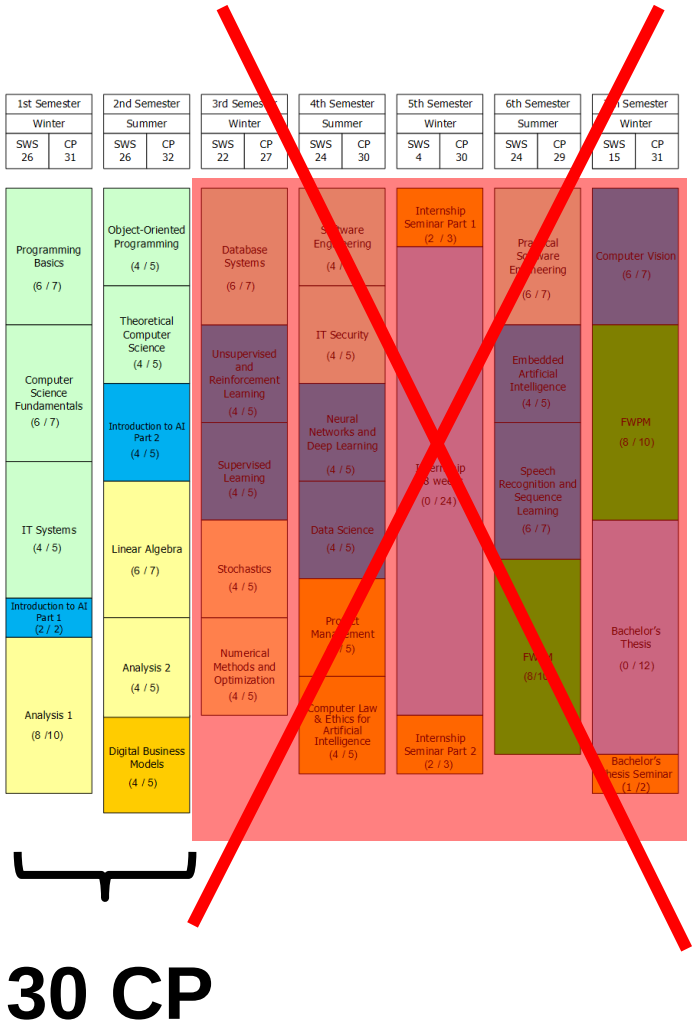
Examination right: Less than 30 CP



- After 3 semesters of study, you need 30 CP
  - No matter through which subjects
- **If no: Immediate exmatriculation!**

Examination right: Occupancy hurdle

- Modules of the 3rd semester or higher (e.g. “Deep Learning", “Reinforcement Learning") only if you have achieved 30 CP from the first two semesters.



Crediting

- RaPo: §4

- Relevant academic achievements from previous studies can be credited
- **Also creditable**: Relevant professional experience as a practical semester (Contact: Prof. Tilly)

- Recommended procedure
  - Contact **Academic Advising** (Prof. Mühlbauer).
  - Form "Anrechnung von Kompetenzen".

Benennung Studien- und Prüfungsleistungen

Vom Studierenden auszufüllen							Entscheidung durch Prüfungskommission Bestätigung durch Datum/Kurzzeichen						
Teil 1: Reguläre Studienpflicht an der Hochschule Rosenheim				Teil 2: Stattdessen anzurechnende Kompetenz			Teil 3: beratende Stellungnahme Fachdozent (optional)			Teil 4: Prüfungskommission (PK)			
							Erworbene Kompetenz: Besteht ein wesentlicher Unterscheid? Begründung im Fall der Ablehnung siehe unten.			Anrechnung (ja/nein) Begründung im Fall der Ablehnung siehe unten.			
Lfd. Nr.	SPO Nr.	Modulbezeichnung an der Hochschule Rosenheim	CP / ECTS	(Modul-)Bezeichnung	CP / ECTS	Note	Ja	Nein	Datum / Kurzzeichen	Ja	Nein	Note	CP
1							○	○		○	○		
2							○	○		○	○		
3							○	○		○	○		
4							○	○		○	○		

Legende: CP=Credit Points, SG=Studiengang, SPO=Studien- und Prüfungsordnung

„Dual Studieren“

hochschule dual
BAYERNS NETZWERK FÜR DUALES STUDIEREN

- Studies with in-depth practice
  - 7 Semester for studies
  - Additional practice during the semester break
- Contact **Academic Advising (Prof. Mühlbauer)**
- **Benefit: You can earn money!**

Links

- **Examination Regulations, Study Regulations, Curriculum**
  - https://www.th-rosenheim.de/en/technology/computer-science-mathematics/applied-artificial-intelligence-bachelors-degree/course-structure/
- **Current timetables, room changes**
  - https://splan.fh-rosenheim.de
- **Learning Campus**: Teaching material, registration for exercise groups, announcements
  - https://learning-campus.th-rosenheim.de
- **Online Service Center (OSC):** Registration for exams, grades, etc..
  - https://qis.fh-rosenheim.de/
- **Announcement of exams:** Type of examination, permitted aids, etc..
  - https://www.th-rosenheim.de/home/infos-fuer/studierende/studienorganisation/formalia/studienregelungen/pruefungsankuendigungen/
- **Module Handbook:** Description of the content of the courses / module
  - https://www.th-rosenheim.de/en/technology/computer-science-mathematics/applied-artificial-intelligence-bachelors-degree/legal-foundations/
- **Discord ☺:** Communication
  - https://discord.gg/Y9jburJH

Why Rosenheim?

- Familiar, practical training!
- Contacts abroad
- Diverse company contact
- Lively student life
- Dedicated lecturers



Some Tips

- Just listening and "consuming" is not enough!
- Important: Exercises, write code, solve tasks yourself!
- Be organized – Deadlines
- Team vs Individuals
- Be open minded and curious
- Ask someone for help

Quelle:https://xkcd.com/

Finally

- **More information about starter programme**
  - https://www.th-rosenheim.de/en/home/information-for/students/information-for-the-first-semester/degree-starter-programme/degree-starter-programme-at-the-rosenheim-campus/
- **LC Semester Start Information:**
  - **https://learning-campus.th-rosenheim.de/course/view.php?id=2812**
- **Do not foget the feedback!**
- **Many thanks to**
  - Lisa Göbl
  - Dac Bao Long Ho
  - Georg Rottenwalder
  - Yannik Hinteregger
- **See you soon!**