



Information on the new examination regulations MSc in Physics

New examination regulations from WiSe 23/24

Why are there new examination regulations?

- Legally: adaptation to current legal requirements (Higher Education Act NRW).
- In terms of content: improvements after Q-conference and discussions with professors and students.

What does this have to do with you?

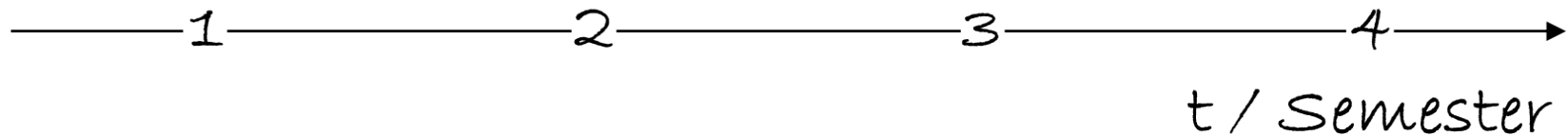
- All MSc students will be transferred to the new regulations in the summer term 2024.
- Earlier transfer (for WiSe 23/24) is possible.

What has changed?

Formal/organizational:

- Core courses must have at least 6 CP and student contribution in exercises – no compulsory participation in exercises but “successful participation” required!
- Adv. seminar from *Primary Area of Specialization* (21 CP → 18 CP) to new module with lab course (6 CP → 9 CP)
- Module *Introductory Project I* must be registered at the examination office before commencement – requires successful completion of the modules or courses of the curriculum in the first two semesters as well as the advisory meeting with supervisor.

Master's degree program MSc in Physics



Practical Training I – 6 CP Lab Course I		Practical Training II – 9 CP Lab Course II + Adv. Seminar		
Advanced Theoretical Physics – 9 CP		or	Advanced Theoretical Physics – 9 CP	
Secondary Area of Specialization – 12 CP		Introductory Project I 12 CP		Master Thesis 30 CP
Primary Area of Specialization – 18 CP		Introductory Project II 12 CP		
Elective Area – 12 CP				

What has changed?

In terms of content:

- In the *PAoS* one specialized course (3 CP) can be replaced by a research internship – provided that the scope of the internship is at least 4 weeks with 20 hours per week and a written elaboration is submitted.
- Introduction of a new elective for the *PAoS*: “*Foundations of Quantum Technologies: Matter, Light and Information*”
- Slight redesign of the lab course modules
 - *Practical Course M I & II* (6 + 6 CP) → *Practical Training I & II* (6 + 9 CP)
Practical Training I: lab course (as before)
Practical Training II: lab course plus adv. seminar
 - No grade for seminar.
 - New option for lab course: *Computational Physics* (now, officially 😊)

What has changed?

Admission to studies:

- Omission of the minimum grade
- Definition of equivalent Bachelor's degree: quantified and qualified regulations on prior knowledge in mathematics, experimental physics, theoretical physics as well as practical experience
- Language skills in English: B2 (including "Abitur" and "language of instruction")

Transition

Automatic transfer for summer term 2024 in accordance with Fachschaft.

- The change to the new regulation before summer term 2024 is possible upon application to the examination board. Please use the following form until Sept, 19th:

<https://teaching.astro.uni-koeln.de/node/62>



- The change can only be made prior to the semester, i.e. a change during the winter term is not possible.
- No action is necessary for a change in the summer term 2024.
- In the event of a change, recognition in favor of the student in case of doubt.
- Recommendation: only new *PAoS* is a good reason to change. In particular, if you will complete your Master's thesis by the end of March 2024, it does not make sense to change to the new examination regulations.



Transition

- Completed Modules will be transferred completely.

Module old	CP	Module new	CP
Compulsory Theory Module (ASP/AQM)	9	Compulsory Theory Module (ASP/AQM)	9
Practical Course M I	6	Practical Training I	6
Secondary Area of Specialization	12	Secondary Area of Specialization	12
Elective Area	12	Elective Area	12
Introductory Project I	12	Introductory Project I	12
Introductory Project II	12	Introductory Project II	12

Note: for two modules a closer look is necessary.
(In favor of student!)

Module old	CP	Module new	CP
Practical Course M II	6	Practical Training II	9
Primary Area of Specialization	21	Primary Area of Specialization	18

We can use the
better weight!

- For uncompleted modules: core courses and specialized courses are transferred according to the module handbook. What was sufficient before has to suffice in the new regulations, too.

Transition – Reason for Changing!

For new area *Foundations of Quantum Technologies: Matter, Light and Information*

Core Courses (2 out of 3 needed):

- Quantum Information Theory (3+1 HPW, 6 CP)
- Quantum Electronics and Qubits (3+1 HPW, 6 CP) (New, SuSe 24)
- Quantum Optics (3+1 HPW, 6 CP - imported course from the University of Bonn)

Specialized courses, e.g.:

- Computational Many-Body Physics (3+1 HPW, 6 CP)
- Topological Matter and Quantum Computing (2 HPW, 3 CP)
- Platforms for Quantum Technologies (2 HPW, 3 CP)
- Selected Topics in Quantum Technologies (3+1 HPW, 6 CP)
- and others including further fitting courses from the University of Bonn or the University of Aachen

Questions?