

Comparison MSc Maths old – new (August 2026) – ONLY RELEVANT IF YOU BEGAN YOUR STUDIES BEFORE WS 26/27.

General information:

- The reformation of the master's programme is a result from students' and lecturers' feedback that we received during the last years. We wanted to make the rules easier and more flexible. We wanted to install a reliable frequency of course offers and install more standardized introductory courses to make sure students can plan better and choose modules according to their interests more easily.
- As part of the modernization of the study programme, a compulsory final examination discussion was introduced as a part of the master theses. This change aligns the programme with current academic standards and the university-wide developments. It is a short (15 minutes) discussion with your supervisors in which you reflect on the writing process of your thesis and explain your methods and decisions during the writing process. It has to be done within 15 working days after the thesis submission. The grading process can only begin after the discussion took place. It has to be done by all students registering their thesis from 1st of October 2026.
- You can find an overview about the new modules planned in the next 6 semesters here: <https://www.uni-goettingen.de/en/707553.html>

The overall structure is more or less the same. All modules that you already passed will also automatically count for the respective area in the new regulations.

Old	New
Overall Structure: 120 C of which 30 C are for the thesis 90 C coursework, consisting of: - 60 C maths modules, regulations according to chosen track, see below - 18 C in one minor - 12 C key competencies	Overall Structure: 120 C of which 30 C are for the thesis 90 C coursework, consisting of: - 60 C maths modules, regulations according to chosen track, see below - 18 C in one minor (more flexibility in the general track, see below.) - 12 C key competencies

AGAIN: All modules that you already passed will also automatically count for the respective area in the new regulations. You do not have to do anything for this.

In the general track the seminar rule and the minor subject rule become more flexible.

Old	New
General Track (F) - all minors allowed – 60 C maths coursework has to consist of - 12 C from SP 1 or SP 2, at least 3 C of these from a seminar or Oberseminar (If the Master's thesis is in one of these, at least 6C have to be from the other.) - 12 C from SP 3 or SP 4, at least 3 C of these from a seminar or Oberseminar (If the Master's thesis is in one of these, at least 6C have to be from the other.) - 36 C to be chosen freely from all SP	General Track (F) - all minors allowed 60 C maths coursework has to consist of: - At least 2 Seminars or Oberseminars (3 C each) – SP free of choice - 9 C from SP 1 or SP 2 (If the Master's thesis is in one of these, at least 6C have to be from the other.) - 9 C from SP 3 or SP 4 (If the Master's thesis is in one of these, at least 6C have to be from the other.) - 36 C to be chosen freely from all SP - minimum 6 C minors, maximum 18 C minors, the 12 C difference can be from maths or minors - minors can be mixed in the general track

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In the physics track the seminar rule becomes more flexible; the maths SP 1 credits are less restricted.

Old	New
Physics Track (Phy) - only physics minor allowed – 60 C maths coursework has to consist of - 12 C from Mathematical Methods in Physics", "Analysis of Partial Differential Equations", "Differential Geometry", "Algebraic Topology", "Non-commutative Geometry" and "Groups, Geometry and Dynamical Systems", at least 3 C of these from a seminar or Oberseminar . - 12 C from SP 3 or SP 4, at least 3 C of these from a seminar or Oberseminar (If the Master's thesis is in one of these at least 6C have to be from the other.) - 36 C to be chosen freely from all SP (inside these max 12 C can be from the minor physics modules)	Physics Track (Phy) - only physics minor allowed 60 C maths coursework has to consist of: - At least 2 Seminars or Oberseminars (3 C each) – from SP 1, SP 3 or SP 4 - 9 C from SP 1 - 9 C from SP 3 or SP 4 - 36 C to be chosen freely from all SP (inside these max 12 C can be from the minor physics modules)

In the MDS track the seminar rule becomes more flexible, the compulsory modules from SP 3 and SP 4 differ due to the new design of the modules.

Old	New
MDS Track (MDS) – only computer science minor allowed, thesis in SP3/SP4 – 60 C maths coursework has to consist of - One 10 C practical course from SP 3 or SP 4 - One 5 C Computer science module - 12 C from in SP 3 in Inverse problems, Optimisation, Variational analysis, Image and geometry processing, Scientific computing / applied mathematics, from these at least 3 C of these from a seminar or Oberseminar - 12 C from in SP 3 in Applied and mathematical stochastics, Statistical modelling and inference, Multivariate and non-Euclidean statistics, Statistical foundations of data science, from these at least 3 C of these from a seminar or Oberseminar - 21 C to be chosen freely from all SP (inside these max 12 C can be from the minor computer science modules)	MDS Track (MDS) – only computer science minor allowed, thesis in SP3/SP4 – 60 C maths coursework has to consist of - At least 2 Seminars or Oberseminars from SP 3 or SP 4 - 9 C from SP 3 modules except - o M.Mat.0731, B.Mat.3030, B.Mat.3032, B.Mat.3033 - 9 C from SP 4 modules except - o M.Mat.0741, B.Mat.3040, B.Mat.3043, B.Mat.3044, B.Mat.3047, B.Mat.3048 - One 10 C practical course from SP 3 or SP 4 - One 5 C computer science module - 21 C to be chosen freely from all SP (inside these max 12 C can be from the minor computer science modules)

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If a study focus is certified, this is done without a grade now.	
Old	New
Regulations for the certification of a study focus (not necessarily needed.) - 27 C from that SP and master thesis in that SP needed - The best 27 C will be used to compute the grade of the certified SP.	Regulations for the certification of a study focus (not necessarily needed.) - 27 C from that SP and master thesis in that SP needed - The SP will be certified without a grade.
A compulsory discussion with your supervisors regarding the thesis is installed. This is compulsory for all students registering their thesis from the 1 st of October 2026 on.	
New thesis regulations:	
Thesis: 30 C thesis now includes a 15-minutes-discussion with both your supervisors before the grading process of your thesis can begin. This discussion has to take place within 15 working days after the submission of the thesis. The discussion serves to defend the master's thesis and includes a critical reflection on the research and writing process, focusing on good scientific practice, justification of methodological choices, and should also address how the work fits into the wider subject area. The discussion is not graded but is a "pass/fail" component of the thesis evaluation.	

What you need to know for your completion of the degree:

- All students will automatically be transferred to the new regulations. As noted before, all credits already passed also count for the new regulations.
- From winter semester 26/27 on, only courses for modules from the new regulations will be offered.
- The fields of study (SP 1-4) stayed the same. As before, each new module belongs to one SP (according to the third digit of the module number). So, if you still need credits for your SP, you just choose a new module from that SP.

What happens to my old modules, that I started and still want to finish? (Finishing old modules is only possible if you already started them, see flowchart on the next page for details.)

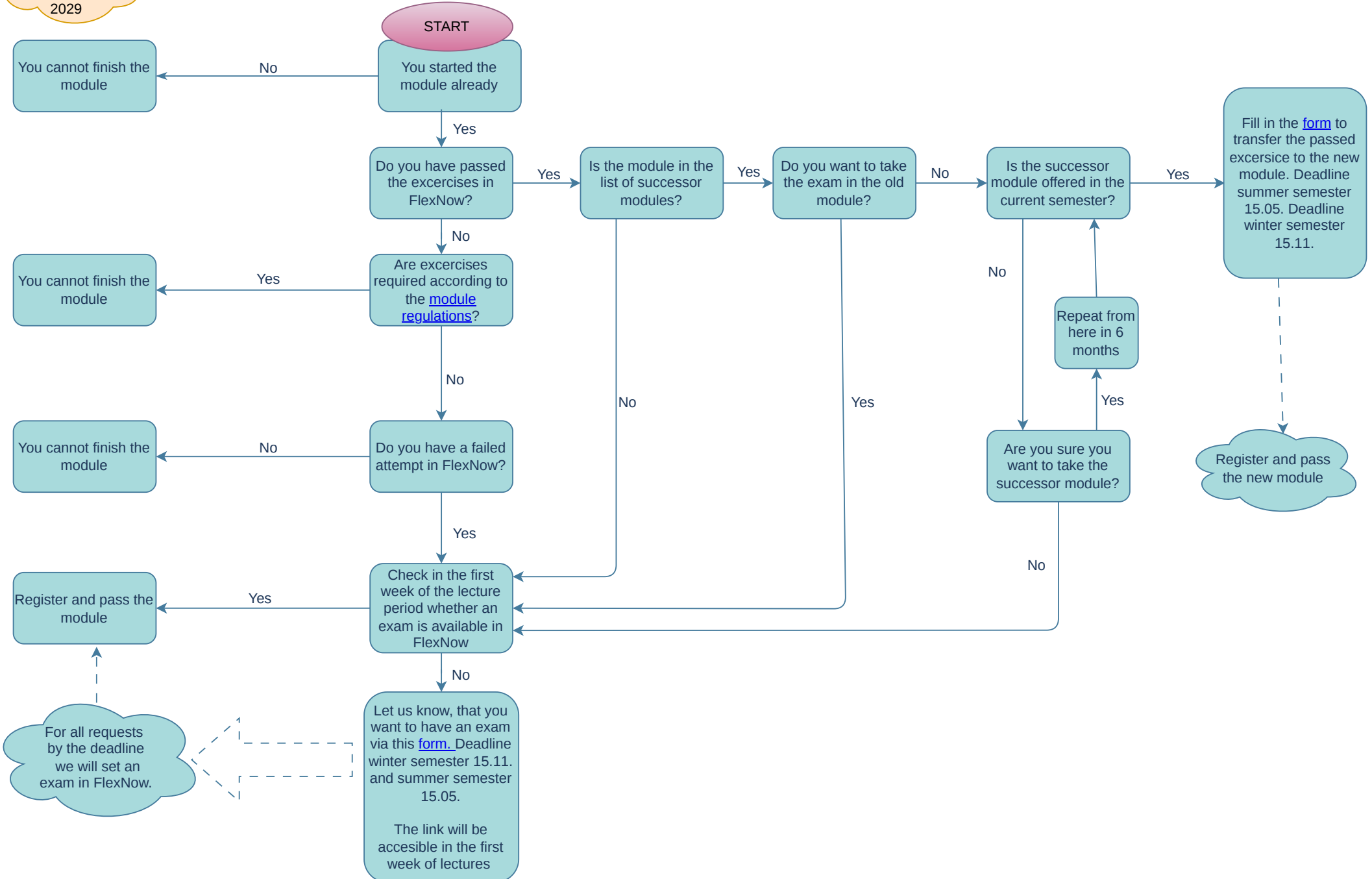
- 1) For a lot of modules, we matched the old modules with the new modules regarding the learned contents/competencies. We name these modules successor modules. In the **attachment** you find a list of the successor modules. These will be determined and communicated by the end of August 2026.

For these the following holds:

- If you have passed only the exercise in an old module, you can have this exercise counted in the successor module to sit the final exam in the successor module.
- You cannot get credits for the successor module if you already passed the old module.
- If there are more than one successor modules for one old module, there are two cases:
 - A: You passed the exercise but not the final exam-> you can choose the one final exam in the new modules you want to have the exercise counted for.
 - B: If you already passed the final exam, you cannot get credits for either of the successor modules.
- Failed attempts for the final exams in old modules will not count as failed attempts for the final exams in the new modules.

only possible
until summer
semester
2029

How to finish an old mathematics module



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Attachment -List of modules and successor modules

For these the following holds:

- If you have passed only the exercise in an old module, this also counts as a passed prerequisite/permission to sit the exam in the successor module.
- You cannot get credits for the successor module if you already passed the old module.
- If there are more than one successor modules for one old module, there are two cases:
 - A: You passed the exercise but not the final exam-> you can choose one final exam in the new modules you want to have the exercise counted for.
 - B: If you already passed the final exam, you cannot get credits for either of the successor modules.
- Failed attempts for the final exams in old modules will not count as failed attempts for the final exams in the new modules.

Successor modules SP1/SP2:

Modulnummer	Modultitel	Nachfolge Modulnummer	Nachfolge Modultitel
B.Mat.3111	Introduction to analytic number theory	B.Mat.4127 B.Mat.4128	Primes I Additive number theory I
B.Mat.3112	Introduction to analysis of partial differential equations	B.Mat.4112	Partial differential equations
B.Mat.3113	Introduction to differential geometry	B.Mat.4113	Differential geometry I
B.Mat.3114	Introduction to algebraic topology	B.Mat.4114	Algebraic topology I
B.Mat.3115	Introduction to mathematical methods in physics	B.Mat.4115	Mathematical quantum mechanics
B.Mat.3121	Introduction to algebraic geometry	B.Mat.4121	Algebraic geometry I
B.Mat.3123	Introduction to algebraic structures	B.Mat.4123	Algebraic structures I
B.Mat.3125	Introduction to non-commutative geometry	B.Mat.4117	Operator algebras and K-theory
B.Mat.3314	Advances in algebraic topology	M.Mat.5214	Algebraic topology II
B.Mat.3321	Advances in algebraic geometry	B.Mat.4221	Algebraic geometry II
B.Mat.3323	Advances in algebraic structures	B.Mat. 4223	Algebraic structures II

Successor module SP3:

Module number	Module titel	Successor module number	Successor module titel
B.Mat.3131	Introduction to inverse problems	B.Mat.4131	Inverse problems
B.Mat.3132	Introduction to approximation methods	B.Mat.4139	Applied Fourier analysis
B.Mat.3133	Introduction to numerics of partial differential equations	B.Mat.4133	Numerics of partial differential equations I
B.Mat.3134	Introduction to optimisation	B.Mat.4134	Optimisation and variational analysis I
B.Mat.3137	Introduction to variational analysis	B.Mat.4134	Optimisation and variational analysis I
B.Mat.3138	Introduction to image and geometry processing	B.Mat.4139	Applied Fourier analysis
B.Mat.3139	Introduction to scientific computing / applied mathematics	B.Mat.4130	Introduction to scientific computing / applied mathematics
B.Mat.3333	Advances in numerics of partial differential equations	B.Mat.4233	Numerics of partial differential equations II
B.Mat.3334	Advances in optimisation	B.Mat.4234	Optimisation and variational analysis II
B.Mat.3337	Advances in variational analysis	B.Mat.4234	Optimisation and variational analysis II

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SP4:

Module number	Module titel	Successor module number	Successor module titel
B.Mat.0740	Stochastisches Praktikum	B.Mat.0743 B.Mat.0746	Stochastisches Praktikum: Einführung Practical course in stochastics: advanced
B.Mat.3141	Introduction to applied and mathematical stochastics	B.Mat.4141	Applied and mathematical stochastics I
B.Mat.3142	Introduction to stochastic processes	B.Mat.4142	Introduction to stochastic processes
B.Mat.3144	Introduction to mathematical statistics	B.Mat.4144	Basics of mathematical statistics
B.Mat.3341	Advances in applied and mathematical stochastics	B.Mat.4241	Applied and mathematical stochastics II