

# Module Overview B.Sc. Mathematics - Field of Study Mathematics (9 Semesters)

Degree Programm Guidelines as per 01.10.2018, Version 01.10.2018

The degree programme consists of 180 Credit Points (CP) in total:

<b>Mandatory Area in Mathematics:</b>	<b>83 CP</b>	<span style="color: blue;">■</span>	<b>Interdisciplinary Electives/Studium Generale:</b>	<b>17-20 CP</b>	
<b>Mathematical Seminar/Project:</b>	<b>5 CP</b>	<span style="color: yellow;">■</span>	‣ <b>Mandatory Interdisciplinary Area:</b>	<b>9 CP</b>	<span style="color: green;">■</span>
<b>Elective Subjects Area:</b>	<b>60-63 CP</b>		‣ <b>Interdisciplinary Electives:</b>	<b>5-8 CP</b>	<span style="color: lightgreen;">■</span>
‣ <b>Additional Courses in Mathematics:</b>	<b>32-37 CP</b>	<span style="color: lightblue;">■</span>	‣ <b>Studium Generale:</b>	<b>3-6 CP</b>	<span style="color: limegreen;">■</span>
‣ <b>Minor Courses:</b>	<b>26-31 CP</b>	<span style="color: magenta;">■</span>	<b>Bachelor-Thesis:</b>	<b>12 CP</b>	<span style="color: orange;">■</span>

<sup>bili</sup> offered in English or German



**Language of Tuition:**  
**GERMAN**  
*Certificates required*

This leads to the following *possible* semester course schedule:

1. Semester	2. Semester	3. Semester	4. Semester	5. Semester	6. Semester	7. Semester	8. Semester	9. Semester
Linear Algebra I <sup>bili</sup> (9 CP)	Linear Algebra II <sup>bili</sup> (9 CP)	Ordinary Differential Equations (5 CP)	Integration Theory (9 CP)	Introduction to Numerical Analysis (9 CP)	Introduction to Stochastics (9 CP)	Seminar <sup>bili</sup> or Project <sup>bili</sup> in Mathematics (5 CP)		Bachelor-Thesis (12 CP)
Analysis I <sup>bili</sup> (9 CP)	Analysis II <sup>bili</sup> (9 CP)	Complex Analysis (5 CP)	Introduction to Algebra (5 CP)		Algorithmic Discrete Mathematics (5 CP)			
Introduction to Programming I (3 CP)	Introduction to Programming II (3 CP)	Introductory Seminar <sup>bifi</sup> (3 CP)			Additional Courses in Mathematics* (32 - 37 CP)			
				Interdisciplinary Electives** (5 - 8 CP)				
		Studium Generale*** (3 - 6 CP)						
		Minor Courses Chemistry, Computer Science, Mechanics, Physics, Business Engineering (select one) <i>other options upon request</i> (26 - 31 CP)						
<b>21 CP</b>	<b>21 CP</b>	<b>18 CP</b>	<b>20 CP</b>	<b>20 CP</b>	<b>20 CP</b>	<b>20 CP</b>	<b>20 CP</b>	<b>20 CP</b>

\* At least three core modules (algebra, analysis, geometry, logic, numerics, optimization and stochastics) must be taken (each 9 CP) as well as further courses in the range of 0 - 10 CP. Before registering for a course in this field for the first time, an exemplary study plan must be submitted to the examination board.

\*\* A course of Mathematical General Knowledge must be taken.

\*\*\* Complete catalogue of all courses at the TU Darmstadt, with the exception of courses in Mathematics and the minor subject.