

## Curriculum Master Course Physical Engineering

	1 <sup>st</sup> Semester	2 <sup>nd</sup> Semester	3 <sup>rd</sup> Semester	4 <sup>th</sup> Semester
<b>Module 1</b>	<b>Solid State Physics</b> 5 Credits	<b>Physical Coating Technologies</b> 5 Credits	<b>Project Management</b> 5 Credits	<b>Master Project (including Colloquium)</b> 30 Credits
<b>Module 2</b>	<b>Quantum Mechanics/ Statistical Physics</b> 5 Credits	<b>Physical Analytics</b> 5 Credits	<b>Optical Design/Micro Optics</b> 10 Credits	
<b>Module 3</b>	<b>Modeling/Simulation</b> 5 Credits	<b>Research and Development Project I</b> 10 Credits	<b>Research and Development Project II</b> 10 Credits	
<b>Module 4</b>				
<b>Module 5</b>	<b>Elective Modules I (3 Modules out of 8)</b> 15 Credits	<b>Elective Modules II (2 Modules out of 4)</b> 10 Credits	<b>Elective Modules III (2 Modules out of 4)</b> 10 Credits	
<b>Module 6</b>				
Credits	30	30	30	30

Basic Modules	Elective Modules	Practical Modules
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### Elective Modules

Elective Modules I (3 Modules out of 8)	Elective Modules II (2 Modules out of 4)	Elective Modules III (2 Modules out of 4)
Radiation Physics/Optics	Components of Laser Technology	Micro- and Nanotechnologies
Laser Physics	Physics of Laser-Matter Interaction	Physical Technical Instrument Development and Device Construction
Basics of Additive Processes	Simulation Methods in Additive Manufacturing	Current Developments/Hazard Analysis
Biophotonics I - Interaction of Light with Organic Matter	Molecular and Cellular Biophysics	Biophotonics II - Ultra-short Metrology and Applications in Biophotonics
Digitaltechnik*		
Digitale Bildverarbeitung*		
Marketing*		

(\* - German only)