

## M.Sc. Medical Photonics – M.Sc. Photonics – M.Sc. Physics

### Criteria for choosing the “right” M.Sc. programme

	M.Sc. Medical Photonics	M.Sc. Photonics	M.Sc. Physics with focus on photonics
Admission requirements			
Degree	B.Sc./B.Eng. in Biology, Chemistry, Physics, state exam in Medicine or equivalent degree	B.Sc./B.Eng. in Physics, Electrical Engineering or related fields	B.Sc. in Physics; the acceptance of other B.Sc./B.Eng. degrees is subject to case-to-case decisions.
Skills	good knowledge in either natural sciences or medicine	good knowledge of mathematics, electrodynamics and experimental physics	good knowledge in mathematics, electrodynamics, quantum mechanics, solid state physics as well as practical experience in experimental physics
Curriculum			
Subjects covered in the curriculum	<ul style="list-style-type: none"> <li>▪ interdisciplinary training in optics, physical chemistry, biology and medicine</li> <li>▪ application and development of optical methods in the field of biology and medicine</li> </ul>	<ul style="list-style-type: none"> <li>▪ physical and technical principles of optics/photonics</li> <li>▪ experimental and theoretical approaches in photonics research</li> <li>▪ technical aspects for the development of optical systems</li> </ul>	<ul style="list-style-type: none"> <li>▪ physical principles of optics/photonics</li> <li>▪ experimental and theoretical approaches in photonics research</li> <li>▪ research aspects of optical systems</li> </ul>
Modules for adjustment of students with different backgrounds	Adjustment modules provide a basic training in optics/photonics and neighbouring disciplines.	Adjustment modules provide insight into optics/photonics and optical properties of materials.	
Module catalogue	<a href="http://www.medpho.uniklinikum-jena.de/medpho/en/Course+schedule">www.medpho.uniklinikum-jena.de/medpho/en/Course+schedule</a>	<a href="http://www.asp.uni-jena.de/master_photonics">www.asp.uni-jena.de/master_photonics</a>	<a href="http://www.asp.uni-jena.de/master_physics">www.asp.uni-jena.de/master_physics</a>
Career opportunities			
Academia	Students are qualified to enrol in Ph.D. programmes offered by faculties of physics, chemistry and medicine.	Students are qualified to enrol in Ph.D. programmes in the field of optics/photonics offered by faculties of natural sciences and engineering.	Students are qualified to enrol in Ph.D. programmes in the field of physics, optics/photonics offered by faculties of natural sciences.
Industry	Industry job opportunities exist in the optical sector, in the life sciences and especially at the interface between both disciplines.	Industry job opportunities are given in R&D in optics/photonics and engineering technologies.	Industry job opportunities are given in R&D in optics/photonics and engineering technologies.
Further information & contact			
Website	<a href="http://www.medpho.uniklinikum-jena.de">www.medpho.uniklinikum-jena.de</a>	<a href="http://www.asp.uni-jena.de/master_photonics">www.asp.uni-jena.de/master_photonics</a>	<a href="http://www.asp.uni-jena.de/master_physics">www.asp.uni-jena.de/master_physics</a>
Registration	Master Service Centre <a href="http://www.master.uni-jena.de">www.master.uni-jena.de</a>	Abbe School of Photonics <a href="http://www.asp.uni-jena.de/application">www.asp.uni-jena.de/application</a>	Master Service Centre <a href="http://www.master.uni-jena.de">www.master.uni-jena.de</a>
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