

General Information			
Course name	Elementary Particle Physics	ECTS Credits	8
		Semester	W
Aims			
To obtain basic knowledge of particle physics which is necessary for quantum field theory and Quantum chromodynamics.			
Content			
Definition, sources and detection of elementary particles, relativistic kinematics, history of discoveries of elementary particles, basic experiments, quark model, particle classification, particle dynamics, electromagnetic interaction, strong and weak interaction, symmetries and conservation laws, parity, charge conjugation, CP symmetry, experiments with violation of spatial and combined symmetry, physics beyond the Standard Model.			
Assessment Methods and Criteria			
exam			
Grading Scale (in %): A: 91% - 100% B: 81% - 90% C: 71% - 80% D: 61% - 70% E: 51% - 60% F: 0% - 50% Grading System: The University recognizes the following six degrees for the evaluation of the study results: a) A – excellent (excellent results) (numerical value 1) b) B – very good (above average results) (1.5) c) C – good (average results) (2) d) D – satisfactory (acceptable results) (2.5) e) E – sufficient (results meet the minimum criteria) (3) f) FX – failed (requires further work) (4)			
Bibliography			
1. D. Griffiths: Introduction to Elementary Particles, Wiley-VCH, 2008, ISBN 978-3-527-40601-2 2. A. Bettini: Introduction to Elementary Particle Physics, Cambridge University Press, 2008, ISBN 978-0-521-88021-3 3. B. Martin and G. Shaw: Particle Physics, Wiley, 2008, ISBN 978-0-470-03293-0 4. D. Perkins: Introduction to High Energy Physics, Cambridge University Press, 2000, ISBN 978-0521621960			