	Ref. code	Title	Lecturer (s)	ECTS	Next period taught *Frequency*
AST	PHYS 643	Astrophysics V : The Variable Universe	Anderson R.	3	Fall 24 *every year*
BIO	PHYS 719	Advanced biomedical imaging methods and instrumentation	Mishkovsky M.-M.	4	Fall 23 *every year*
	PHYS 760	CIBM translational MR neuroimaging & spectroscopy	Cudalbu C., Lanz B., Wenz D., Xin L., Zerbi V.	3	Spring 24 *every year*
	PHYS 631	Fundamentals of superresolution optical microscopy and scanning Probe Microscopy	Sekatski S.	2	Spring 24 *every year*
CONDENSED MATTER	PHYS 637	Electron Matter Interactions in Transmission Electron Microscopy	Hébert C., Alexander D., Lagrange T.	2	Spring 24 *every 2 years*
	PHYS 639	Field theory in condensed matter physics	Mudry Ch.	4	Fall 24 *every 2 years*
	PHYS 636	General aspects of the electronic structure of crystals	Yevtushynsky D.	2	Spring 24 *every 2 years*
	PHYS 726	Introduction to frustrated magnetism	Mila F.	2	Spring 26 *every 3 years*
	PHYS 747	Introduction to Metalorganic Vapour Phase Epitaxy of III-V semiconductors	Caroff-Gaonac'h Ph., Dwir B., Grandjean N., Moselund K., Rudra A.	1	Spring 24 *every year*
	PHYS 640	Neutron and X-ray Scattering of Quantum Materials	Fogh E., Rønnow H., Schmitt T.	4	Fall 23 *every year*
	PHYS 645	Physics of Random and Disordered Systems	Müller M.	3	Fall 24 *every year*
	PHYS 715	Physical Optics and Advanced Imaging	Guizar Sicairos M., invited lecturers	3	Fall 24 *every year*
	PHYS 613	Spintronics: Fundamentals and applications	Pivetta M., Rusponi S.	4	Spring 25 *every year*
	PHYS 638	Some aspects of topology in condensed matter physics	Mudry Ch.	4	Fall 23 *every 2 years*
	PHYS 745	Spin dynamics	Ansermet J.-Ph., invited lecturers	4	Fall 23 *every year*

	Ref. code	Title	Lecturer (s)	ECTS	Next period taught *Frequency*
HIGH ENERGY	PHYS 751	Advanced concepts in particle accelerators	Pieloni T., Herr W., Ischebeck R.	4	Spring 24 *every year*
	PHYS 702	Advanced Quantum Field Theory	Bellazzini B.	4	Fall 23 *every year*
	PHYS 739	Conformal Field Theory and Gravity	Guica M., Mathys G., Papadodimas K., Trevisani E.	4	Fall 23 *every year*
	PHYS 741	Gauge Theories and the Standard Model	Cohen T.	4	Fall 23 *every year*
VARIOUS	PHYS 761	Attosecond radiation sources	Carbone F., Puppin M., Johnson S.	4	Fall 23 *every year*
	PHYS 757	Axiomatic Quantum Field Theory	Bossoney S.	1	Fall 24 (block course) *every year*
	PHYS 754	Lecture series on Scientific Machine Learning	Carleo G., Ceriotti M., De Los Rios P., Mathis A., Schwaller Ph., Wyart M., Zdeborová L.	2	Fall 2024 *every 2 years*
	PHYS 756	Lectures on twisted belayer graphene	Kruchkov A.	2	Spring 25 *every 2 years*
	PHYS 743	Parallel programming	Lanti E., Richart N.	3	Fall 23 (block course) *every year*
	PHYS 642	Statistical Physics for Optimization and Learning	Krzakala F., Barbier D., Stephan L., Zdeborová L.	4	Spring 25 *every 2 years*
PLASMAS	PHYS 734	Control and Operation of Tokamaks	Merle A., Pau A., Reimerdes H.	2	Spring 25 (block course) *every 2 years*
	PHYS 632	Fusion and Industrial plasma technologies	Alberti S., Decker J., Hogge J.-Ph., Howling A., Hursin M., Martin Y., Sedlák K., Siravo U.	4	Spring 25 *every 2 years*
	PHYS 731	Magnetic confinement	Fasoli A., Graves J., Loizu J., Merle A., Ricci P.	4	Fall 24 *every 2 years*
	PHYS 732	Plasma Diagnostics in Basic Plasma Physics Devices and Tokamaks: from Principles to Practice	Furno I., Remeirdes H., Labit B.	2	Spring 24 (block course) *every 2 years*
	PHYS 736	Plasma Instabilities	Brunner S., Graves J.	4	Fall 23 *every 2 years*
QST	PHYS 744	Advanced Topics in Quantum Sciences and Technologies	Chipaux M., Manucharyan V., Holmes Z., Hempel C.	4	Fall 24 *every 2 years*
	PHYS 641	Quantum computing	Savona V.	4	Fall 23 *every year*

Master courses

PHYS 454	Quantum optics and quantum information	Brantut J.-Ph.	6	Spring *every year*
PHYS 302	Biophysics : physics of biological systems	Rahi S.	4	Fall *every year*
PHYS 441	Statistical physics of biomacromolecules	De Los Rios P.	4	Fall *every year*