

Ellective courses for PandA in 2022/23

Kod (Code) 0800-	Przedmiot (Subject)	ECTS credits	Liczba godz. w sem. (hour/ sem)	Rodzaj zajęć (form)	Prowadzący (Teacher/lecturer)
	Winter semester				
PA-QUANTINF	Quantum information	3	30	Lect.	Prof. Sarbicki
PA-INASTRO	Introduction to astrophysics (not for astronomy graduate)	3	30	Lect.	Many lecturers
PA-ASCHEMA	Astrochemistry and astrobiology	3	30	Lect.	Prof. Bartkiewicz Prof. Maciejewski
PA-OPTELA	Optoelectronics laboratory	5	60	Lab.	Prof. Piątkowski Dr. Wiśniewski
PA-OPASTLA	Optical astrophysics laboratory	3	45	Lab.	Prof. A. Słowikowska Dr. M. Gawroński
	University-wide courses ¹	2/3			
	Summer semester				
PA-QUANTOPT2	Quantum optics 2	5	30	Lect.	Prof. Kolenderski
PA-QUANTOPT2	Quantum optics 2		30	Clas.	Dr. Lasota
PA-GALAX	Galaxies: formation and evolution	5	30	Lect.	Prof. Hanasz
PA-GALAX	Galaxies: formation and evolution		30	Lab.	Dr. Wóltański
PA-RADASTRO	Radioastronomy laboratory	3	45	Lab	Prof. M. Szymczak Dr. M. Gawroński
	University-wide courses ²	2/3			

¹ From the list on www page: <https://www.umk.pl/studenci/zajecia-ogolnouniwersyteckie/ZO-O-2022-2023.pdf> without courses directly related to the studied program

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