

**Postgraduate Program in Physics (PG-FIS)**

**Courses Offered 1st Period 2021**

Area of Research: **ATOMIC AND MOLECULAR PHYSICS (FIS-A)** - Area Representative: André Chaves (andrejck@ita.br)

Area of Research: **NONLINEAR DYNAMICS AND COMPLEX SYSTEMS (FIS-C)** - Area Representative: Erico Rempel (rempe@ita.br)

Area of Research: **NUCLEAR PHYSICS (FIS-N)** - Area Representative: Odilon Lourenço (odilon.ita@gmail.com)

Area of Research: **PHYSICS OF PLASMAS (FIS-P)** - Area Representative: Argemiro Sobrinho (argemiro@ita.br)

Abbreviation	Course	Academic load	Preconditions		Max Credits	Professor(s)	Schedule for the 1st day of class
			Recommended	Required			
FF-200	Mathematical Methods of Physics	4-0-0-8	None	None	3	Brett Vern Carlson	Tuesday at 13h30-17h30
FM-224	Nonlinear Dynamics and Chaos II	3-0-0-6	FM-223	None	3	Érico Luz Rempel	Tuesday and Thursday at 13h30-15h30
FQ-290	Quantum Chemistry I	3-0-0-6	None	None	3	Francisco Bolivar Correto Machado	Tuesday at 13h30-16h30
FF-299	Electrical and Plasma Discharge Laboratory	0-4-0-4	None	None	3	Gilberto Petraconi Filho and Rodrigo Sávio Pessoa	Friday at 13h30-17h30
FF-296	Density Functional Theory I	3-0-0-6	FF-201	None	3	Ivan Guilhon Mitoso Rocha	Tuesday at 13h30-16h30
FF-253	Introduction to Quantum Mechanics	3-0-0-6	None	None	3	Marcelo Marques	Monday at 13h30-16h30
FF-264	Electrical Discharges and Plasmas I	3-0-0-6	FF-204 or FF-261	None	3	Rodrigo Sávio Pessoa	Thursday at 13h30-16h30
FF-202	Quantum Mechanics 2	4-0-0-8	FF-201	None	3	Tobias Frederico	Friday at 13h30-17h30
FQ-291	Methods of Molecular Quantum Chemistry	3-0-0-6	None	FQ-290 or FF-201	3	Francisco Bolivar Correto Machado and Leonardo Ueno	Thursday at 13h30-16h30
FF-204	Quantum Electrodynamics I	4-0-0-6	FF-200	None	3	Marisa Roberto	Thursday at 13h30-17h30
MT-203	Thin Film Science and Technology	3-0-0-4	MT-200 and FF-299	MT-201 or equivalent	3	Douglas Marcel Gonçalves Leite	Thursday at 9h00
FF-206	Nanomaterials and Nanotechnology	3-0-0-6	None	None	3	Gilmar Patrocinio Thim	Tuesday at 9h00
AB-121	Orbital Mechanics	3-0-0-5	None	None	3	Maisa de Oliveira Terra	To be defined
FQ-297	Introduction to COLUMBUS - An Electronic Structure Program with Multireferences	6-0-4-4	None	None	1	Francisco Bolivar Correto Machado and Hans Lischka	Short course in the second half of March
FF-321	Thesis Seminar I* / **	1-0-0-2	None	None	1	Manuel Máximo Bastos Malheiro de Oliveira	Wednesday at 14h00-15h30
FF-322	Thesis Seminar II* / **	1-0-0-2	None	None	-	Manuel Máximo Bastos Malheiro de Oliveira	Wednesday at 14h00-15h30
FF-500	These†	-	None	None	-	Advisor	-
FF-601	Teaching Internship I***	-	None	Coordinator's Consent	3	Manuel Máximo Bastos Malheiro de Oliveira	To be defined
FF-602	Teaching Internship II***	-	None	Coordinator's Consent	-	Manuel Máximo Bastos Malheiro de Oliveira	To be defined