MINISTÉRIO DA EDUCAÇÃO
UNIVERSIDADE FEDERAL DE OURO PRETO
PRÓ-REITORIA DE GRADUAÇÃO

UFOP

COURSE OF PHYSICS - 2026/2(curriculum 3)

OURO PRETO'S CAMPUS

CODE	MANDATORY DISCIPLINES	PREREQUISITE	SWL/EWL	CWL	CLASSES		SEM
					T	P	
EDU252	HISTORICAL STUDIES ON EDUCATION		60/0	72	4	0	1
FIS118	CONCEPTUAL PHYSICS		60/0	72	2	2	1
FIS123	INTRODUCTION TO PHYSICS METHODS		60/0	72	4	0	1
MTM122	DIFFERENTIAL AND INTEGRAL CALCULUS I		90/0	108	6	0	1
MTM131	ANALYTICAL GEOMETRY AND VECTOR CALCULUS		60/0	72	4	0	1
EDU253	SOCIOLOGICAL STUDIES ON EDUCATION		60/0	72	4	0	2
FIS106	FUNDAMENTALS OF MECHANICS		60/0	72	4	0	2
FIS336	EXPERIMENTAL PHYSICS I		60/0	72	0	4	2
FIS400	HISTORY OF PHYSICS	FIS118	60/0	72	2	2	2
LET966	INTRODUCTION TO THE BRAZILIAN SIGN LANGUAGE		60/0	72	2	2	2
MTM123	DIFFERENTIAL AND INTEGRAL CALCULUS II	MTM122	60/0	72	4	0	2
FIL643	PHILOSOPHY OF SCIENCE: 20TH CENTURY		60/0	72	3	1	3
FIS107	FUNDAMENTALS OF THERMODYNAMICS	FIS106	30/0	36	2	0	3
FIS108	FUNDAMENTALS OF FLUIDS, OSCILLATIONS AND WAVES		30/0	36	2	0	3
FIS337	EXPERIMENTAL PHYSICS II	MTM122 MTM131	30/0	36	0	2	3
FIS401	INFORMATION AND COMMUNICATION TECHNOLOGIES IN EDUCATION		90/0	108	4	2	3
MTM124	DIFFERENTIAL AND INTEGRAL CALCULUS III	MTM123	60/0	72	4	0	3
QUI242	GENERAL CHEMISTRY	MTM122 MTM131	60/0	72	4	0	3
QUI243	EXPERIMENTAL GENERAL CHEMISTRY	MTM122 MTM131	30/0	36	0	2	3
EDU256	EDUCATIONAL PSYCHOLOGY	EDU252	60/0	72	4	0	4
FIS109	FUNDAMENTALS OF ELECTROMAGNETISM	FIS107 MTM122 MTM131	60/0	72	4	0	4
FIS338	EXPERIMENTAL PHYSICS III	FIS106 FIS336	30/0	36	0	2	4
FIS406	SUPERVISED INTERNSHIP IN PHYSICS I	EDU252	30/0	36	1	1	4
FIS415	CURRICULUM, HISTORY, AND STS IN PHYSICS TEACHING		90/0	108	4	2	4
MIF001	INTERDISCIPLINARY TRAINING MODULE I		30/0	36	1	1	4
MTM112	INTRODUCTION TO LINEAR ALGEBRA	MTM131	60/0	72	4	0	4
EDU254	POLICIES AND EDUCATIONAL MANAGEMENT	EDU252 EDU253	60/0	72	4	0	5
FIS110	FUNDAMENTALS OF OPTICS AND QUANTUM MECHANICS	FIS109	30/0	36	2	0	5
FIS339	EXPERIMENTAL PHYSICS IV	FIS109 FIS338	30/0	36	0	2	5
FIS403	EXPERIMENTATION AND INQUIRY-BASED IN PHYSICS EDUCATION	FIS401	90/0	108	2	4	5
FIS407	SUPERVISED INTERNSHIP IN PHYSICS II	EDU252 EDU253	90/0	108	2	4	5
MTM125	INTRODUCTION TO ORDINARY DIFFERENTIAL EQUATIONS	MTM112 MTM122	60/0	72	4	0	5
FIS124	CLASSICAL MECHANICS	FIS106 MTM123	60/0	72	4	0	6
FIS302	STRUCTURE OF MATTER I	MTM123	60/0	72	4	0	6
FIS404	NON-FORMAL AND INFORMAL EDUCATION IN THE NATURAL SCIENCES	FIS401 FIS415	90/0	90	4	2	6
FIS408	SUPERVISED INTERNSHIP IN PHYSICS III	FIS407	90/0	108	2	4	6
MIF002	INTERDISCIPLINARY TRAINING MODULE II		30/0	36	1	1	6
FIS126	RESEARCH METHODOLOGY	FIS401 FIS415	60/0	72	4	0	7
FIS409	SUPERVISED INTERNSHIP IN PHYSICS IV	FIS408	120/0	144	2	6	7
FIS413	ADVANCED EXPERIMENTAL PHISICS I	FIS302	60/0	72	0	4	7
FIS515	THEORY OF ELECTROMAGNETISM I	FIS109 MTM125	60/0	72	4	0	7
FIS125	FUNDAMENTALS OF RELATIVITY THEORY	FIS109	30/0	36	2	0	8
FIS127	GRADUATION PROJECT	FIS126	30/0	36	2	0	8
FIS304	THERMODYNAMICS I	MTM123	60/0	72	4	0	8
FIS410	SUPERVISED INTERNSHIP IN PHYSICS V	FIS409	90/0	108	1	5	8
FIS427	ADVANCED EXPERIMENTAL PHISICS II	FIS413	60/0	72	0	4	8
MIF003	INTERDISCIPLINARY TRAINING MODULE III		30/0	36	1	1	8

SWL – SEMESTER WORKLOAD IN HOURS; EWL – EXTENSION WORKLOAD IN HOURS; CWL - 50 MINUTE CLASS WORKLOAD; P - PRACTICAL CLASSES; T - THEORY CLASSES; SEM - SEMESTER

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CODE	ELECTIVE DISCIPLINES	PREREQUISITE	SWL/EWL	CWL	CLASSES		SEM
					T	P	
BCC701	COMPUTER PROGRAMMING I	MTM122 MTM131	60/0	72	2	2	
BEV290	ENVIRONMENTAL EDUCATION	FIS415	60/0	72	2	2	
BEV299	FUNDAMENTALS OF BIOETHICS	FIS415	30/0	36	2	0	
EST202	STATISTICS AND PROBABILITY	MTM122 MTM131	60/0	72	4	0	
FIS136	MICROSCOPY TECHNIQUES	FIS110	30/0	36	2	0	
FIS137	MOLECULAR SPECTROSCOPY		30/0	36	1	1	
FIS139	INTRODUCTION TO ASTROPHYSICS	FIS110	60/0	72	4	0	
FIS140	STATICS	FIS106	30/0	36	2	0	
FIS141	INTRODUCTION TO NUCLEAR PHYSICS	FIS110	60/0	72	4	0	
FIS142	INTRODUCTION TO THE PHILOSOPHY AND HISTORY OF MODERN PHYSICS	FIS400	60/0	72	4	0	
FIS215	CONTINUUM MECHANICS		60/0	72	4	0	
FIS331	COMPUTATIONAL PHYSICS	BCC701 MTM123	60/0	72	4	0	
FIS340	MATERIAL PHYSICS	FIS110	60/0	72	4	0	
FIS341	METHODS OF THEORETICAL PHYSICS I	MTM125	60/0	72	4	0	
FIS405	METHODOLOGY OF RESEARCH IN SCIENCE TEACHING	FIS401	60/0	72	4	0	
FIS411	SCIENTIFIC CULTURE AND PUBLIC COMMUNICATION OF SCIENCE	FIS401	60/0	72	2	2	
FIS412	INTERFACES BETWEEN SCIENCE AND CULTURE	FIS401	60/0	72	2	2	
FIS516	QUANTUM MECHANICS I	FIS302	60/0	72	4	0	
FIS524	CRYSTALS GROWTH	FIS304 QUI242 QUI243	60/0	72	4	0	
FIS600	PHYSICS AND SCIENCE, SOCIETY AND THE ENVIRONMENT		30/0	36	2	0	
FIS624	MODELING AND SIMULATION		60/0	72	4	0	
FIS724	INTRODUCTION TO STATISTICAL PHYSICS	MTM123	60/0	72	4	0	
FIS822	SOLID STATE PHYSICS	FIS302	60/0	72	4	0	
FIS830	INTRODUCTION TO QUANTUM INFORMATION.		60/0	72	4	0	
FIS831	THEORY OF RELATIVITY	FIS302	60/0	72	4	0	
MUL450	GENERAL ASTRONOMY	FIS415	60/0	72	4	0	
MUL451	FUNDAMENTALS TO ASTRONOMY TEACHING	FIS415	30/0	36	2	0	
QUI275	HISTORY OF CHEMISTRY	FIS415	60/0	72	2	2	

CODE	ACTIVITIES	PREREQUISITE	CHARACTER	SWL	SEM
ATV006			MANDATORY	90	
ATV100			MANDATORY	110	

Required Courses Load		Work Load
Mandatory Disciplines		2730
Elective Disciplines		300
Optative Disciplines		0
Facultative Disciplines		0
Activities		200
Extensions		90
	Total	3230

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