

## Master of Science in Physics – Medical Physics

First Level						
Course Code	Course Name	Hours				Pre-Requs.
		Theo.	Pract.	Train.	Accred.	
PHS100	Ethics and Editing of scientific research	2	.	.	2	-
PHS110	Classical Electrodynamics	2	.	.	2	-
PHS111	Computational Physics	2	.	.	2	-
PHS112	Advanced Quantum Mechanics	2	.	.	2	-
<b>No. of Units - 10 units</b>						

Second Level ( Medical Physics)						
Course Code	Course Name	Hours				Pre-Requs.
		Theo.	Pract.	Train.	Accred.	
PHS120	Nuclear Medicine Physics	2	.	.	2	PHS111
PHS121	Advanced Topics in Radiation Detection and Dosimetry	2	.	.	2	PHS112
PHS122	Health physics	2	.	.	2	PHS110
PHS123	Anatomy and Physiology for Medical Physicists	2	.	.	2	-
<b>No. of Units - 10 units</b>						

Third Level ( Medical Physics)						
Course Code	Course Name	Hours				Pre-Requs.
		Theo.	Pract.	Train.	Accred.	
PHS124	Medical imaging	2	.	.	2	PHS120
PHS125	Radiation Therapy Physics	2	.	.	2	PHS123
PHSxxx	Elective course 1*				2	
PHSxxx	Elective course 2*				2	
<b>No. of Units – 10 units</b>						

Third Level ( Medical Physics )- Elective Courses						
Course Code	Course Name	Hours				Pre-Requs.
		Theo.	Pract.	Train.	Accred.	
PHS126	Laboratory - Diagnostic Radiology and Nuclear Medicine	.	6	.	2	PHS120 And PHS121
PHS127	Accelerators for Medicine	2	.	.	2	PHS121
PHS128	Advanced Topics of Non-ionizing-based Imaging Modalities	2	.	.	2	PHS123
PHS129	Special Course	2	.	.	2	PHS122

\* Students should select two courses from elective courses group.

Fourth Level					
Course code	Course Name	Hours			
		Theo.	Pract.	Train.	Accred.
PHS199	Thesis	-	-	-	9
<b>No. of Units - 9 units</b>					

## Master of Science in Physics – Materials Science Physics

First Level						
Course Code	Course Name	Hours				Pre-Requis.
		Theo.	Pract.	Train.	Accred.	
PHS 610	Ethics and Editing of scientific research	2	.	.	2	-
PHS 611	Classical Electrodynamics	3	.	.	3	-
PHS 6111	Computational Physics	2	.	.	2	-
PHS 6112	Advanced Quantum Mechanics	2	.	.	2	-
<b>No. of Units - 10 units</b>						

Second Level (Materials Science Physics)						
Course Code	Course Name	Hours				Pre-Requis.
		Theo.	Pract.	Train.	Accred.	
PHS 620	Fundamentals of materials science	3	.	.	3	PHS 610, PHS 611
PHS 621	Thermodynamics and equilibrium processes	3	.	.	3	PHS 610
PHS 622	Semiconductors and nanostructures	2	.	.	2	PHS 6112
PHS 623	Magnetism materials in modern technologies	2	.	.	2	-
<b>No. of Units - 10 units</b>						

Third Level ((Materials Science Physics))						
Course Code	Course Name	Hours				Pre-Requis.
		Theo.	Pract.	Train.	Accred.	
PHS 624	Surface physics of materials	2	.	.	2	PHS 620
PHS 625	Nanomaterials	3	.	.	3	PHS 620
PHS XXX	Elective course 1*	2	.	.	2	PHS XXX
PHS XXX	Elective course 2*	2	.	.	2	PHS XXX
<b>No. of Units - 10 units</b>						

Third Level ((Materials Science Physics)- Elective Courses)						
Course Code	Course Name	Hours				Pre-Requis.
		Theo.	Pract.	Train.	Accred.	
PHS 626	Dielectric properties of materials	2	.	.	2	PHS 623
PHS 627	optoelectronic	2	.	.	2	PHS 622
PHS 628	Solar cell materials and devices	2	.	.	2	PHS 622
PHS 629	Special Course	2	.	.	2	PHS xxx

\* Students should select two courses from elective courses group.

Fourth Level						
Course code	Course Name	Hours				
		Theo.	Pract.	Train.	Accred.	
PHS 699	Thesis	-	-	-	9	
<b>No. of Units - 9 units</b>						

## Coding courses

The course codes consist of literal as well as numerical classifications.

The literal classification refers to the section, and the numerical classification consists of three digits as follows:

1. The number at hundreds place indicates the year.
۲. The number at tens place indicates the specialization.
۳. Last digit symbolizes the sequence of the course within the specific specialization of the department.

## The meaning of the number at tens place in the coding of physics department courses

Specific Specialization	Numbers Indicators
Ethics and Editing of scientific research	۰
Classical Electrodynamics- Computational Physics-Advanced Quantum Mechanics	۱
Nuclear Medicine Physics- Advanced Topics in Radiation Detection and Dosimetry- Health physics- Anatomy and Physiology for Medical Physicists- Medical imaging- Radiation Therapy Physics- Laboratory - Diagnostic Radiology and Nuclear Medicine- Accelerators for Medicine- and Advanced Topics of Non-ionizing-based Imaging Modalities- Special Course	۲
Fundamentals of materials science - Thermodynamics and equilibrium processes - Semiconductors and nanostructures- Magnetism materials in modern technologies- Surface physics of materials- Nanomaterials- Dielectric properties of materials- Optoelectronic-Solar cell materials and devices- - Special Course	۳