



TIMETABLE for the Master ERASMUS MUNDUS in NUCLEAR PHYSICS in Spain

Academic year 2018-2019

The students have to follow the topics in the first semester, all of them in Seville:

Quantum Mechanics (60 hours) 12 weeks x 5 h/week Atomic and Molecular Physics (60 hours) 12 weeks x 5 h/week Basic Experimental Nuclear Physics (30 hours = 20 h theory + 10 h lab (4 experiments x 2,5 h/exp)) 7 weeks theory x 3 h/week + 4 weeks lab 2.5 h/exp Advanced Techniques in Experimental Nuclear Physics (30 hours = 15 h theory + 15 h lab (6 experiments x 2,5 h/exp)) 5 weeks theory x 3 h/week + 6 weeks lab 2.5 h/exp Applied Nuclear Physics I (30 h intensive during the week January 21-25, 2019)

Second semester

Nuclear Structure: properties and models (30 h intensive during the week February 4-8, 2019) in Salamanca

Applied Nuclear Physics II (30 h intensive during the week February 18-22, 2019) in Madrid **Many-Body Theories in Nuclear Physics** (30 h intensive during the week February 25-March 1, 2019) in Madrid

Nuclear Astrophysics (30 h intensive during the week March 25-29, 2019) in Barcelona **Introduction to Nuclear Reactions** (30 h intensive during two weeks April 22-May 3, 2019) in Sevilla

In addition, the students without knowledge of Spanish will have Spanish language/culture classes during the morning (3 hours/day) of the first two weeks. The exact timetable will be communicated shortly.

Acronims: QM = Advanced Quantum Mechanics A&M = Atomic and Molecular Physics BENP = Basic Experimental Nuclear Physics ATENP = Advanced Techniques in Experimental Nuclear Physics API = Applied Nuclear Physics I NS = Nuclear Structure: properties and models APII = Applied Nuclear Physics II MBT = Many-Body theories in Nuclear Physics NA = Nuclear Astrophysics NR = Nuclear Reactions

All lectures will be held at Facultad de Física in Avda. Reina Mercedes s/n, classroom 9. The lectures will start on October 8th, 2018

The subject BENP will be lectured during the first 7 weeks of the semester and then, with the same timetable will be lectured the subject ATENP during 5 weeks. The timetable for the first semester is the following (Wednesday is booked for laboratory classes of BENP and ATENP)

Lectures	Monday	Tuesday	Wednesday*	Thursday	Friday
16,00 - 17,00	A &M	A &M	BENP/ATENP	A &M	A &M
17,00 - 18,00	QM	A &M		QM	BENP/ATENP
18,00 - 18,30	break	break	BENP/ATENP Laboratory	break	break
18,30 - 19,30	QM	QM		QM	BENP/ATENP

* In October 24, 31 and November 7,14 the Wednesday sessions will be moved forward 1 hour. Lectures will be from 17 to 18 h and lab sessions will be from 18 to 20:30 h.

FIRST SEMESTER

QM and A&M

Starting date: October 8, 2018 (Week number 41) – Ending date: January 11, 2019 (week: 2) Exams period: January 2019, 13-21

BENP

Starting date: October 8, 2018 (week number 41) – Ending date: November 23, 2018 (week: 47) LAB: October 24 and 31, and November 7, 14 Exams period: January 2019, 13-21

ATENP

Starting date: November 26, 2018 (week number 48) – Ending date: January 11, 2019 (week: 2) LAB: November 28, December 5, 12 and 19, January 9 Exams period: January 2019, 13-21

<u>API</u>

Teaching period: week January 21-25, 2019 Exams period: February 2019

SECOND SEMESTER

<u>NS</u>

Teaching period: week February 4-8, 2019 in SALAMANCA Exams period: April-May 2019

<u>APII</u>

Teaching period: week February 18-22, 2019 in MADRID Exams period: April-May 2019

<u>MBT</u>

Teaching period: week February 25-March 1, 2019 in MADRID Exams period: April-May 2019

<u>NA</u>

Teaching period: week March 25-29, 2019 in BARCELONA Exams period: June 2019

<u>NR</u>

Teaching period: two weeks April 22-May 3, 2019 in SEVILLA Exams period: June 2019

ERASMUS MUNDUS Master Degree in Nuclear Physics (NucPhys)								
Subject	course	group	cred	Ann	Period	Lecturers		
			its	/cuat				
Introduction	1		3	1C	April 22-May 3,	MV Andres (1)		
Reactions					2019	A MORO (1) I. Cómez-Camacho (0.4)		
Reactions						Marcos G Álvarez $(0,3)$		
						Juan P Fernández (0,3)		
Applied	1	1	3	1C	Jan 21-25, 2019	M.A. Respaldiza (0,8)		
Nuclear						F.J. García-López (0,8)		
Physics I						M. García-León (0,8)		
		1	6	10	0 · 0 0010 I · 11	A. Climent (0,6)		
Quantum			6	IC	Oct 8, 2018-Jan 11,	J. Gomez-Camacho (4,0)		
Mechanics					2019	JA Ldy (2,0)		
Basic	1	1	1,5	1C	Oct 8-Nov 23, 2018	Marcos G Álvarez (0,8)		
Experiment						JP Fernández (0,7)		
al Nuclear								
Physics								
Basic	1	LAB	1,5	1C	Oct 8- Nov 23,	Marcos G Alvarez (0,5)		
Experiment					2018 October 24 21	JP Fernandez (1)		
Physics					and November 7			
1 Hybres					14			
Advanced	1	1	1	1C	Nov 26, 2018-Jan	M García Muñoz (1)		
Experiment					11, 2019			
al								
Techniques								
In Nuclear Drysics								
Advanced	1	LAB	2	1C	Nov 26, 2018-Jan	C Guerrero (1.5)		
Experiment	-		-	10	11, 2019	E. Viezzer (0,5)		
al					November 28,			
Techniques					December 5, 12			
in Nuclear					and 19, January 9,			
Physics			_					
Atomic and	1	1	6	1C	Oct 8, 2018-	A. Moro (3)		
Molecular					January 11, 2019	E. Viezzer (3)		
PHYSICS								

Lecturers in the Erasmus Mundus Master Degree in Nuclear Physics (NucPhys)

The subjects: Nuclear Astrophysics (UB), Nuclear Structure:Properties and Models (USAL), Many-Body Theories in Nuclear Physics (UAM), and Applied Nuclear Physics II (UCM) are lectured at other Universities by lecturers of the corresponding University.