



## **TIMETABLE for the Joint European Master in NUCLEAR PHYSICS in Spain**

### **Academic year 2025-2026**

The students have to follow the following topics in the first semester, all of them in Seville (except Nuclear Structure):

**Quantum Mechanics** (60 hours)

**Atomic and Plasma Physics** (60 hours)

**Basic Experimental and Applied Laboratory** (45 hours = 30 h theory + 15 h lab (5 experiments x 3 h/exp))

**Computing and Numerical Methods** (45 hours)

**Nuclear Structure** (30 h intensive during two weeks January 12-16, (on-line) and January 19-23 (in person), 2026) **in Madrid**  
(Trip to Caen January 26-28 January)

There will be an intensive Spanish course for beginners (dates to be determined) in the mornings.

Students from paths 1 and 3 are expected to be in Sevilla until February 20<sup>th</sup>, 2026.

During last week of February students in path 1 (Experiments) and path 3 (Applications) have to move to Padova and Catania, respectively. They are expected to be there by February 23rd, 2026.

Second semester (for the **theory path-2**)

**Introduction to Nuclear Reactions** (30 h intensive during four weeks February 9 – March 6, 2026) in Sevilla

**Many-Body Theories in Nuclear Physics** (30 h intensive during four weeks February 9 – March 6, 2026) in Sevilla

**Relativistic Quantum Theory: Nuclear Processes** (30 h intensive during the weeks March 9-13 (on-line) & March 16-20 (in person), 2026) in Sevilla

**Weak Interactions** (30 h intensive during the weeks March 23-27 (on line) & April 6-10 (in-person), 2026) in Sevilla

**Elective, one of the following**

- **Hadron Physics** (30 h intensive during the weeks April 13-17 (on-line) & April 20-24 (in person), 2026) in Barcelona
- **Nuclear Astrophysics** (30 h intensive during the weeks April 27 - April 30 (in person) & May 4-8 (on-line), 2026) in Barcelona



Acronyms:

**QM** = Quantum Mechanics

**A&P** = Atomic and Plasma Physics

**BEAL** = Basic Experimental and Applied Laboratory

**CNM** = Computing and Numerical Methods

**NS** = Nuclear Structure: properties and models

**MBT** = Many-Body theories in Nuclear Physics

**RQT** = Relativistic Quantum Theory: Nuclear Processes

**WI** = Weak Interactions

**HP** = Hadron Physics\*

**NA** = Nuclear Astrophysics\*

**NR** = Introduction to Nuclear Reactions

\*Each student has to choose one of these subjects

**WEEKS**

<b>40:</b> October 2-3	<b>41:</b> October 6-10	<b>42:</b> October 13-17	<b>43:</b> October 20-24
<b>44:</b> Oct.27-Oct. 31	<b>45:</b> November 3-7	<b>46:</b> November 10-14	<b>47:</b> November 17-21
<b>48:</b> Nov 24-Nov 28	<b>49:</b> December 1-5	<b>50:</b> December 9-12	<b>51:</b> December 15-19

Lectures	Monday	Tuesday	Wednesday	Thursday	Friday
9:30-13:30	BEAL laboratory GROUP 1	BEAL laboratory GROUP 2		BEAL laboratory GROUP 3	
	Weeks 41, 42, 43, 44, and 45				

Lectures	Monday	Tuesday	Wednesday	Thursday	Friday
15:00-17:00	A&P	QM	A&P	QM	QM
17:00-17:30					
17:30-19:00	CNM	BEAL (theory)	BEAL (theory)	A&P	CNM
19:00-19:30	CNM			A&P	CNM
19:30-20:00	CNM				CNM
	Weeks 40-51				



### **QM and A&P (60 hours)**

**Starting date: October 2, 2025 (Week number 40) -**

**Ending date: December 19, 2025 (week: 51) (6 hours/week)**

**Final Exams:**

- QM: January 30<sup>th</sup>
- A&P: February 2<sup>nd</sup>

### **BEAL (45 hours)**

**Starting date:**

**THEORY (30 hours): October 2, 2025 (week number 40) -**

**Ending date: December 19, 2025 (week: 51) (3 hours/week)**

LAB Group 1 (15 hours): weeks 41-45, **on Monday**

LAB Group 2 (15 hours): weeks 41-45, **on Tuesday**

LAB Group 3 (15 hours): weeks 41-45, **on Thursday**

LAB Group 4 (15 hours): weeks 41-45, **on Friday**

**Exam:**

Final Exam: February 4<sup>th</sup>

### **CNM (45 hours)**

**Starting date:**

**THEORY (45 hours): October 2, 2025 (week number 40) -**

**Ending date: December 19, 2025 (week: 51) (4,5 hours/week)**

Evaluation (presentation of projects): January 7-9

### **NS**

**Teaching period:** weeks 2-3, January 12-16 (on-line) + **January 19-23 (in person)**, 2026 in MADRID

Exam: February 6, 2026 in Sevilla

**January 26-28, 2026 visit to CAEN (France)**

## **SECOND SEMESTER**

### **NR**

**Teaching period:** February 9 – March 6, 2026 (in person) in SEVILLA

Exam: May 12, 2026.

### **MBT**

**Teaching period** February 9 – March 6, 2026 (in person) in SEVILLA

Exam: May 15, 2026

### **RQT**

**Teaching period:** March 9-13 (on-line) & March 16-20 (in person)  
2026 in SEVILLA

Exam: May 19, 2026

### **WI**

**Teaching period:** March 23-27 (on line) & April 6-10 (in-person)  
2025, in SEVILLA

Exam: May 22, 2026

### **HP\***



**Teaching period:** April 13-17 (on-line) & April 20-24 (in person)  
2026, in BARCELONA  
**Exam:** May 26, 2026

**NA\***

**Teaching period:** April 27-30 (in person) & May 4-8 (on-line),  
2026 in BARCELONA  
**Exam:** May 29, 2026

\* each student has to select one of these topics

Subject	ECTS	Place	Dates	Character	EXAMS
Nuclear Structure: Properties and Models	6	Madrid	12-16 January 2026 (on-line) 19-23 Jan 2026 (in person)	Compulsory	6 February 2026
Introduction to Nuclear Reactions	6	Sevilla	February 9 – March 6, 2026 (in person)	Compulsory for path2 students	12 May 2026
Many-Body Theories in Nuclear Physics	6	Sevilla	February 9 – March 6, 2026 (in person)	Compulsory for path2 students	15 May 2026
Relativistic Quantum Mechanics: Nuclear Processes	6	Sevilla	March 9-13 2026 (on-line) March 16-20 2026 (in person)	Compulsory for path2 students	19 May 2026
Weak Interactions	6	Sevilla	March 23-27 2026 (on line) April 6-10 2026 (in-person)	Compulsory for path2 students	22 May 2026
Hadron Physics	6	Barcelona	April 13-17 2026 (on-line) April 20-24 2026 (in person)	Elective for path2 students	26 May 2026
Nuclear Astrophysics	6	Barcelona	April 27-30 2026 (in person) May 4-8 2026 (on-line)	Elective for path2 students	29 May 2026



**In case of fail in one or more subjects, the student will have one extra opportunity in the period June 16 to July 17 of 2025. For S3, the lectures at Caen (France) start in September 1<sup>st</sup>, 2026.**

**End of evaluation for subjects in S1: February 7**

**End of evaluation for subjects in S2: June 1**

**End first call for subjects in S1 & S2: June 1**

**Second call: period for exams for who failed in subjects in S1 and/or S2:**

- **S1 subjects: June 11 to June 23.**
- **S2 subjects: July 4 to July 15.**

**End second call for subjects in S1 & S2: July 16**