

# MASTER IN PHOTONICS

<https://photonics.masters.upc.edu/en/academic-year-2024-25>

# MASTER EUROPHOTONICS

<https://www.europhtonics.org/wordpress>

# TIMETABLE ACADEMIC YEAR 2024-2025

Last update: 20 December 2024



UNIVERSITAT POLITÈCNICA  
DE CATALUNYA

**UAB**  
Universitat Autònoma  
de Barcelona



UNIVERSITAT DE  
BARCELONA

**ICFO**  
Institut  
de Ciències  
Fotòniques

# Calendar. Academic Year 2024-2025

September '24							October '24							November '24																						
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## Important dates and information

### REGISTRATION:

Master in Photonics: beginning of September 2024, to be confirmed

### COURSE STARTS:

Master in Photonics: 12<sup>th</sup> September 2024 / Europhotonics: 14<sup>th</sup> October 2024

**WELCOME SESSION:** 12<sup>th</sup> September 2024 at 11h30, room C3/012, Physics building, Autonomous University of Barcelona

### SPRING SCHOOL by Erasmus Mundus Europhotonics Master

Dates to be confirmed

(Master in Photonics' students are also invited)

### TEACHING BLOCKS

Lectures are grouped into three teaching blocks plus a fourth block allocated for the Master Thesis

**Block 1A:** From 12<sup>th</sup> Sep to 11<sup>th</sup> Oct (**only MSc. in Photonics**). **Location:** Autonomous University of Barcelona, Bellaterra, Barcelona

**Block 1B:** From 14<sup>th</sup> Oct to 09<sup>th</sup> Dec. **Location:** Autonomous University of Barcelona, Bellaterra, Barcelona

**Block 2:** From 10<sup>th</sup> Dec to 14<sup>th</sup> Feb. **Location:** UPC Campus Nord, Barcelona

**Block 3:** From 17<sup>th</sup> Feb to 11<sup>th</sup> Apr. **Location:** UPC Campus Nord, Barcelona

**Block 4:** From 22<sup>nd</sup> Apr until July or September. **Location:** Master Thesis advisor's institution

**Christmas holidays:** From 21<sup>st</sup> Dec 2024 to 07<sup>th</sup> Jan 2025

**Easter holidays:** From 12<sup>th</sup> April to 21<sup>st</sup> April 2025

## Block 1A: Universitat Autònoma de Barcelona

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
10:00 - 11:00			SEMINARS Room N/A		
11:00 - 12:00					
12:00 - 13:00					
13:00 - 14:00					
14:00 - 15:00		INTRODUCTION TO PHOTONICS Room C3B/111 Code 230550	BEAM PROPAGATION AND FOURIER OPTICS Room C3B/111 Code 230553	INTRODUCTION TO PHOTONICS Room C3B/111 Code 230550	
15:00 - 16:00					
16:00 - 17:00		BEAM PROPAGATION AND FOURIER OPTICS Room C3B/111 Code 230553	INTRODUCTION TO PHOTONICS Room C3B/111 Code 230550	BEAM PROPAGATION AND FOURIER OPTICS Room C3B/111 Code 230553	
17:00 - 18:00					

## Block 1A: Laboratory

	MONDAY 07 OCTOBER				FRIDAY 11 OCTOBER
15:00 - 19:00	LABORATORY SESSION 1  (UPC / UAB / UB)				LABORATORY SESSION 1  (UPC / UAB / UB)

**Notes:** Seminars' room to be defined.

# Block 1B: Universitat Autònoma de Barcelona

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
10:00 - 11:00			SEMINARS Room N/A		
11:00 - 12:00					
12:00 - 13:00					
13:00 - 14:00					
14:00 - 15:00	PHOTONICS MATERIALS AND METAMATERIALS Room C3B/111 Code 230562	QUANTUM OPTICS Room C3B/111 Code 230555	BEAM PROPAGATION AND FOURIER OPTICS Room C3B/111 Code 230553	INTRODUCTION TO PHOTONICS Room C3B/111 Code 230550	QUANTUM OPTICS Room C3B/111 Code 230555
15:00 - 16:00		ACTIVE & SPECTRAL IMAGING Room C5/020 Code 230581			ACTIVE & SPECTRAL IMAGING Room C5/020 Code 230581
16:00 - 17:00	FIBERS & TELECOM Room C3B/111 Code 230566	FROM COOLING & TRAPPING OF NEUTRAL ATOMS TO BEC Room C3B/111 Code 230579	INTRODUCTION TO PHOTONICS Room C3B/111 Code 230550	BEAM PROPAGATION AND FOURIER OPTICS Room C3B/111 Code 230553	FROM COOLING & TRAPPING OF NEUTRAL ATOMS TO BEC Room C3B/111 Code 230579
17:00 - 18:00		MEASURING WITH LIGHT Room C5/020 Code 230573			MEASURING WITH LIGHT Room C5/020 Code 230573
18:00 - 19:00	OPTOELECTRONICS & PHOTOVOLTAIC TECHNOLOGY Room C1/015 Code 230569	BEAM PROPAGATION AND FOURIER OPTICS Room C3B/111 Code 230553		PHOTONICS MATERIALS AND METAMATERIALS Room C3B/111 Code 230562	
19:00 - 20:00					

**Notes:** Courses that overlap in time (in red) cannot be chosen simultaneously: Fibers & Telecom/ Optoelectronics & Photovoltaic Technology, Quantum Optics/Active & Spectral Imaging, and From Cooling & Trapping/ Measuring with Light.

# Blocks 1A and 1B: Exams, Labs and Activities

	MONDAY 25 NOVEMBER	TUESDAY 26 NOVEMBER	WEDNESDAY 27 NOVEMBER	THURSDAY 28 NOVEMBER	FRIDAY 29 NOVEMBER
14:00 - 17:00	<p>FIBERS &amp; TELECOM Room C5/243</p> <p>OPTOELECTRONICS &amp; PHOTOVOLTAIC TECHNOLOGY Room C3B/008</p>	<p>QUANTUM OPTICS Room C3/015</p> <p>ACTIVE &amp; SPECTRAL IMAGING Room C3B/008</p>	<p>BEAM PROPAGATION AND FOURIER OPTICS Room C5/034</p>	<p>INTRODUCTION TO PHOTONICS Room C3/028</p>	<p>FROM COOLING &amp; TRAPPING OF NEUTRAL ATOMS TO BEC Room C5/251</p> <p>MEASURING WITH LIGHT Room C5/243</p>
17:00 - 20:00	<p>PHOTONICS MATERIALS AND METAMATERIALS Room C5/034</p>				
	MONDAY 2 / 9 DECEMBER	TUESDAY 3 DECEMBER	WEDNESDAY 4 DECEMBER	THURSDAY 5 DECEMBER	FRIDAY 06 DECEMBER
15:00 - 19:00	<p>LABORATORY SESSION 2 (UPC / UAB / UB)</p>	<p>ACTIVITIES DAY 1</p>	<p>ACTIVITIES DAY 2</p>	<p>ACTIVITIES DAY 3</p>	
15:00 - 19:00	<p>LABORATORY SESSION 2 (UPC / UAB / UB)</p>				

**Notes:** The exams for the courses in red (Fibers & Telecom/ Optoelectronics & Photovoltaic Technology, Quantum Optics/Active & Spectral Imaging, and From Cooling & Trapping/Measuring with Light) overlap in time. During the Activities Days, several visits to research labs will be scheduled (including UPC, UAB, UB and ICFO).

## Block 2: Universitat Politècnica de Catalunya (UPC), Campus Nord

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
10:00 - 11:00			SEMINARS Room A4 205		
11:00 - 12:00					
12:00 - 13:00					
13:00 - 14:00					
14:00 - 15:00	VISUAL OPTICS & BIOPHOTONICS Room A4 205 Code 230582  ADVANCED QUANTUM OPTICS Room A4 206 Code 230558	NONLINEAR OPTICS Room A4 205 Code 230563	VISUAL OPTICS & BIOPHOTONICS Room A4 205 Code 230582  ADVANCED QUANTUM OPTICS Room A4 206 Code 230558	NONLINEAR OPTICS Room A4 205 Code 230563	LASER SYSTEMS AND APPLICATIONS Room A4 205 Code 230570
15:00 - 16:00					
16:00 - 17:00	BUSINESS AND PATENTS IN PHOTONICS Room A4 205 Code 230552	LASER SYSTEMS AND APPLICATIONS Room A4 205 Code 230570	IMAGE PROCESSING IN BIOPHOTONICS Room A4 205 Code 230561	BUSINESS AND PATENTS IN PHOTONICS Room A4 205 Code 230552	QUANTUM SIMULATORS Room A4 205 Code 230578
17:00 - 18:00					
18:00 - 19:00	QUANTUM SIMULATORS Room A4 205 Code 230578	INTEGRATED PHOTONICS Room A4 205 Code 2301116	QUANTUM LIGHT-MATTER INTERFACES Room A4 206 Code 230588	QUANTUM LIGHT-MATTER INTERFACES Room A4 206 Code 230588	INTEGRATED PHOTONICS Room A4 205 Code 230567
19:00 - 20:00					

**Notes:** Courses that overlap in time (in red) cannot be chosen simultaneously: Visual Optics & Biophotonics / Advanced Quantum Optics, and Image Processing in Biophotonics/Quantum light-matter interfaces.

## Block 2: Exams, Labs and Activities

	<b>MONDAY 03 FEBRUARY</b>	<b>TUESDAY 04 FEBRUARY</b>	<b>WEDNESDAY 05 FEBRUARY</b>	<b>THURSDAY 06 FEBRUARY</b>	<b>FRIDAY 07 FEBRUARY</b>
14:00-17:00	VISUAL OPTICS & BIOPHOTONICS Room A4 205  ADV. QUANTUM OPTICS WITH APPLICATIONS Room A4 206	LASER SYSTEMS AND APPLICATIONS Room A4 205	IMAGE PROCESSING IN BIOPHOTONICS Room A4 205	NONLINEAR OPTICS Room A4 205	QUANTUM SIMULATORS Room A4 205
17:00-20:00		INTEGRATED PHOTONICS Room A4 205	QUANTUM LIGHT-MATTER INTERFACES Room A4 205 Code 230588		
	<b>MONDAY 10 FEBRUARY</b>	<b>TUESDAY 11 FEBRUARY</b>	<b>WEDNESDAY 12 FEBRUARY</b>	<b>THURSDAY 13 FEBRUARY</b>	<b>FRIDAY 14 FEBRUARY</b>
15:00-19:00	LABORATORY SESSION 3  (UPC / UAB / UB)	ACTIVITIES DAY 4	ACTIVITIES DAY 5	ACTIVITIES DAY 6	LABORATORY SESSION 3  (UPC / UAB / UB)

**Notes:** The exams for the courses in red (Visual Optics & Biophotonics/Adv. Quantum Optics) overlap in time. The specific timetable for the Activities Days will be coordinated by the corresponding professors.

# Block 3: Universitat Politècnica de Catalunya (UPC), Campus Nord

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
10:00 - 11:00			SEMINARS Room A4 205		
11:00 - 12:00					
12:00 - 13:00					
13:00 - 14:00					
14:00 - 15:00	MANAGING LIGHT WITH DEVICES Room A4 205 Code 230572	ULTRAFAST AND ULTRAIINTENSE LIGHT Room A4 205 Code 230572	MANAGING LIGHT WITH DEVICES Room A4 205 Code 230572	ULTRAFAST AND ULTRAIINTENSE LIGHT Room A4 205 Code 230572	EXPERIMENTAL OPTICAL TECHNIQUES I BIOLOGY (@ICFO) Code 230554
15:00 - 16:00		OPTICAL DESIGN Room A4 206 Code 230587		OPTICAL DESIGN Room A4 206 Code 230587	
16:00 - 17:00	BUSINESS AND PATENTS IN PHOTONICS Room A4 205 Code 230552	MACHINE LEARNING ON CLASSICAL AND QUANTUM DATA Room A4 205 Code 230584	BUSINESS AND PATENTS IN PHOTONICS Room A4 205 Code 230552	MACHINE LEARNING ON CLASSICAL AND QUANTUM DATA Room A4 205 Code 230584	
17:00 - 18:00					
18:00 - 19:00	NANOPHOTONICS Room A4 205 Code 230564	3D LIGHT CONTROL FOR BIOLOGICAL APPLICATIONS Room A4 205 Code2301115	NANOPHOTONICS Room A4 205 Code 230564	3D LIGHT CONTROL FOR BIOLOGICAL APPLICATIONS Room A4 205 Code 2301115	
19:00 - 20:00		QUBITS APPLICATIONS Room A4 206 Code 2301117		QUBITS APPLICATIONS Room A4 206 Code 2301117	

**Notes:** Courses that overlap in time (in red) cannot be chosen simultaneously: Managing Light with devices/Quantum light-matter interfaces, Ultrafast & Ultraintense Light/Optical Design, 3D Light Control for Biological Appl./Qubits applications and Experimental optical techniques in Biology/Semiconductor Photonics.

## Block 3: Exams, Labs and Activities

	<b>MONDAY 31 MARCH</b>	<b>TUESDAY 01 APRIL</b>	<b>WEDNESDAY 02 APRIL</b>	<b>THURSDAY 03 APRIL</b>	<b>FRIDAY 04 APRIL</b>
14:00-17:00	MANAGING LIGHT WITH DEVICES Room A4 205	ULTRAFAST & ULTRAINTENSE LASER LIGHT Room A4 205  OPTICAL DESIGN Room A4 206	BUSINESS AND PATENTS IN PHOTONICS Room A4 205	3D LIGHT CONTROL FOR BIOLOGICAL APPLICATIONS Room A4 205  QUBITS APPLICATIONS Room A4 206	EXPERIMENTAL OPTICAL TECHNIQUES IN BIOLOGY (@ICFO)  SEMICONDUCTOR PHOTONICS Room A4 205 Code 2301116
17:00-20:00	NANOPHOTONICS Room A4 205	MACHINE LEARNING ON CLASSICAL AND QUANTUM DATA Room A4 205			
	<b>MONDAY 7 APRIL</b>	<b>TUESDAY 8 APRIL</b>	<b>WEDNESDAY 9 APRIL</b>	<b>THURSDAY 10 APRIL</b>	<b>FRIDAY 11 APRIL</b>
15:00-19:00	LABORATORY SESSION 4  (UPC / UAB / UB)	ACTIVITIES DAY 7	ACTIVITIES DAY 8	ACTIVITIES DAY 9	LABORATORY SESSION 4  (UPC / UAB / UB)

**Notes:** The exams for the courses in red (Managing light with devices/Quantum light-matter interfaces, Ultrafast & Ultraintense Light/Optical Design, 3D Light Control for Biological Applications/Qubits Applications and Experimental optical techniques in Biology/Semiconductor Photonics) overlap in time.  
The specific timetable for the Activities Days will be coordinated by the corresponding professors.

## Block 4: Master Thesis (22 April to 10 September 2025)

**BLOCK 4** is devoted to the Master Thesis work.

The presentations will be scheduled in 2 sessions in **July and September 2025**.

## Notes

### **SEMINARS:**

A **3 hours/week slot** is reserved for *seminars*. These seminars will be organized occasionally and will be announced a few weeks in advance and held in Campus Nord, when possible. They are part of the Master program, and the assistance is compulsory.

### **EXAMS AND EVALUATION PROCEDURE:**

Professors of each course decide the assessment procedure, as pointed out in the Course Contents.

Exams are scheduled at the end of each teaching block.

Exceptionally, other examination activities might be performed outside the exam's week schedule.

### **OTHER POSSIBLE CIRCUMSTANCES:**

Under unexpected circumstances, lectures may be cancelled. In this case, re-schedule will be carried out provided that both students and professors agree.

All courses will be taught in-classroom.