#### **MASTER IN PHOTONICS**

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

## **MASTER EUROPHOTONICS**

https://www.europhotonics.org/wordpress

# TIMETABLE ACADEMIC YEAR 2024-2025

Last update: 7 May 2024









Queda especificar Carla Camp



### Important dates and information

#### **REGISTRATION:**

Master in Photonics: September 7<sup>th</sup> 2024

**COURSE STARTS:** 

Master in Photonics: 12<sup>th</sup> September 2024 / Europhotonics: 09<sup>th</sup> October 2024

WELCOME SESSION: 12<sup>th</sup> September 2024 at 11h30, Physics building, Autonomous

University of Barcelona

#### **SPRING SCHOOL by Erasmus Mundus Europhotonics Master**

Tentative date: March 26<sup>th</sup>-29<sup>th</sup> 2025

(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 12th Sep to 11th 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 17th Feb to 11th 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 21st Dec 2024 to 07th 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					
11:00 - 12:00			SEMINARS Room N/A		
12:00 - 13:00					
13:00 - 14:00					
14:00 - 15:00		INTRODUCTION TO PHOTONICS	INTRODUCTION TO PHOTONICS	INTRODUCTION TO PHOTONICS	
15:00 - 16:00		Room N/A Code 230550	Room N/A Code 230550	Room N/A Code 230550	
16:00 - 17:00		BEAM PROPAGATION AND FOURIER OPTICS	BEAM PROPAGATION AND FOURIER OPTICS	BEAM PROPAGATION AND FOURIER OPTICS	
17:00 - 18:00		Room N/A Code 230553	Room N/A Code 230553	Room N/A Code 230553	

# **Block 1A: Laboratory**

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

Notes: Lecture rooms according to table.

## Block 1B: Universitat Autònoma de Barcelona

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

**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	FIBERS & TELECOM ROOM N/A  OPTOELECTRONICS & PHOTOVOLTAIC TECHNOLOGY ROOM N/A	QUANTUM OPTICS Room N/A  ACTIVE & SPECTRAL IMAGING Room N/A	INTRODUCTION TO PHOTONICS Room N/A	BEAM PROPAGATION AND FOURIER OPTICS Room N/A	FROM COOLING & TRAPPING OF NEUTRAL ATOMS TO BEC ROOM N/A  MEASURING WITH LIGHT ROOM N/A
17:00 - 20:00	PHOTONICS MATERIALS AND METAMATERIALS Room N/A				
	MONDAY 2 / 9 DECEMBER	TUESDAY 3 DECEMBER	WEDNESDAY 4 DECEMBER	THURSDAY 5 DECEMBER	FRIDAY 06 DECEMBER
15:00 - 19:00	LABORATORY SESSION 2 (UPC / UAB / UB)	ACTIVITIES DAY 1	ACTIVITIES DAY 2	ACTIVITIES DAY 3	
15:00 - 19:00	LABORATORY SESSION 2 (UPC / UAB / UB)				

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

**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

	MONDAY 03 FEBRUARY	TUESDAY 04 FEBRUARY	WEDNESDAY 05 FEBRUARY	THURSDAY 06 FEBRUARY	FRIDAY 07 FEBRUARY
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 BIOPHOTHONICS 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		
	MONDAY 10 FEBRUARY	TUESDAY 11 FEBRUARY	WEDNESDAY 12 FEBRUARY	THURSDAY 13 FEBRUARY	FRIDAY 14 FEBRUARY
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					
11:00 - 12:00			SEMINARS Room N/A		
12:00 - 13:00					
13:00 - 14:00					
14:00 - 15:00	MANAGING LIGHT WITH DEVICES Room A4 205 Code 230572	ULTRAFAST AND ULTRAINTENSE LIGHT Room A4 205 Code 230572	MANAGING LIGHT WITH DEVICES Room A4 205 Code 230572	ULTRAFAST AND ULTRAINTENSE LIGHT Room A4 205 Code 230572	EXPERIMENTAL OPTICAL TECHNIQUES I BIOLOGY (@ICFO)
15:00 - 16:00	QUANTUM LIGHT-MATTER INTERFACES Room A4 206 Code 230588	OPTICAL DESIGN Room A4 206 Code 230587	QUANTUM LIGHT-MATTER INTERFACES Room A4 206 Code 230588	OPTICAL DESIGN Room A4 206 Code 230587	Code 230554
16:00 - 17:00	BUSINESS AND PATENTS IN PHOTONICS	MACHINE LEARNING ON CLASSICAL AND QUANTUM DATA	BUSINESS AND PATENTS IN PHOTONICS	MACHINE LEARNING ON CLASSICAL AND QUANTUM DATA	SEMICONDUCTOR PHOTONICS
17:00 - 18:00	Room A4 205 Code 230552	Room A4 205 Code 230584	Room A4 205 Code 230552	Room A4 205 Code 230584	Room A4 205 Code 2301116
18:00 - 19:00	NANOPHOTONICS Room A4 205	3D LIGHT CONTROL FOR BIOLOGICAL APPLICATIONS Room A4 205 Code 2301115	NANOPHOTONICS Room A4 205	3D LIGHT CONTROL FOR BIOLOGICAL APPLICATIONS Room A4 20 Code 2301115	
19:00 - 20:00	Code 230564	QUBITS APPLICATIONS Room A4 206 Code 2301117	Code 230564	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

	MONDAY 31 MARCH	TUESDAY 01 APRIL	WEDNESDAY 02 APRIL	THURSDAY 03 APRIL	FRIDAY 04 APRIL
14:00-17:00	MANAGING LIGHT WITH DEVICES Room A4 205  QUANTUM LIGHT-MATTER INTERFACES Room A4 206	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	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			
	MONDAY 7 APRIL	TUESDAY 8 APRIL	WEDNESDAY 9 APRIL	THURSDAY 10 APRIL	FRIDAY 11 APRIL
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.