

**MASTER IN PHOTONICS**

**MASTER EUROPHOTONICS-POESII**

**TIMETABLE**  
**ACADEMIC YEAR 2019-20**

Version 17 July 2019



UNIVERSITAT POLITÈCNICA  
DE CATALUNYA

**UAB**  
Universitat Autònoma  
de Barcelona



UNIVERSITAT DE  
BARCELONA

**ICFO**  
Institut  
de Ciències  
Fotòniques

# Calendar. Academic year 2019-20.

SEPTEMBER 2019						
Mo	Tu	We	Th	Fr	Sa	Su
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

OCTOBER 2019						
Mo	Tu	We	Th	Fr	Sa	Su
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

NOVEMBER 2019						
Mo	Tu	We	Th	Fr	Sa	Su
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4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

DECEMBER 2019						
Mo	Tu	We	Th	Fr	Sa	Su
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2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

JANUARY 2020						
Mo	Tu	We	Th	Fr	Sa	Su
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

FEBRUARY 2020						
Mo	Tu	We	Th	Fr	Sa	Su
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3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	

MARCH 2020						
Mo	Tu	We	Th	Fr	Sa	Su
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9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

APRIL 2020						
Mo	Tu	We	Th	Fr	Sa	Su
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6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

MAY 2020						
Mo	Tu	We	Th	Fr	Sa	Su
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4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

JUNE 2020						
Mo	Tu	We	Th	Fr	Sa	Su
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8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

JULY 2020						
Mo	Tu	We	Th	Fr	Sa	Su
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

AUGUST 2020						
Mo	Tu	We	Th	Fr	Sa	Su
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

SEPTEMBER 2020						
Mo	Tu	We	Th	Fr	Sa	Su
	2	3	4	5	6	7
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

Block	Teaching Period	Exams	Labs	Activity days
#1A	From Sep 12 to Oct 10 (19 days).		Oct 7 and Oct 11	
#1B	From Oct 14 to Nov 22 (29 days).	Nov 25 to Nov 28	Nov 29 and Dec 2	Dec 3, 4 and 5
#2	From Dec 9 to Dec 21 and from Jan 7 to Jan 31	Feb 3 to Feb 7	Feb 10 and Feb 14	Feb 11, 12 and 13
#3	From Feb 17 to Mar 27 (30 days).	May 30 to Apr 2	Apr 17 and Apr 20	Apr 14, 15 and 16
MSc Th.	From Apr 21 to Sep 10			

# Important dates and information

## **REGISTRATION:**

Master in Photonics: 10 September / Europhotonics: Before 5 October

## **COURSE STARTS:**

Master in Photonics: 12 September / Europhotonics: 14 October

## **SPECIAL SEMINAR ON BUILDING OPTOMECHANICAL SYSTEMS:**

27 September and 4 October 2pm - 4pm @ UB A43M

## **SPRING SCHOOL @ Marseille, France.**

Photonics Engineering, Nanophotonics and Biophotonics

(Master in Photonics students are also invited)

## **TEACHING BLOCKS**

Lectures are grouped into 3 teaching blocks + fourth block devoted for the Master Thesis

Block 1A: From 12 Sep to 11 Oct (**only MSc. in Photonics**)

Block 1B: From 14 Oct to 5 Dec

Block 2: From 9 Dec to 21 Dec and from 7 Jan to 14 Feb

Block 3: From 17 Feb to 20 Apr

Block 4: From 21 Apr until September

Christmas holidays: From 21 Dec 2019 to 6 Jan 2020

Holy Week holidays: From 4 Apr to 13 Apr

## Block 1A: Faculty of Physics (UB) (from 12 Sep to 10 Oct).

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
10:00-11:00					SEMINARS (A23M)
11:00-12:00					
12:00-13:00					
13:00-14:00					
14:00-15:00		INTRODUCTION TO PHOTONICS (A43M)	INTRODUCTION TO PHOTONICS (A43M)	INTRODUCTION TO PHOTONICS (A43M)	
15:00-16:00					
16:00-17:00		BEAM PROPAGATION AND FOURIER OPTICS (A43M)	BEAM PROPAGATION AND FOURIER OPTICS (A43M)	BEAM PROPAGATION AND FOURIER OPTICS (A43M)	
17:00-18:00					

## Block 1A: Labs

	MONDAY 7 OCTOBER				FRIDAY 11 OCTOBER
<i>15:00- 19:00</i>	LABORATORY SESSION 1  (UPC / UAB / UB)				LABORATORY SESSION 2  (UPC / UAB / UB)

**Notes:** Seminars and Skills is an 8 hours optional seminar not included in the Course Program. Attendance is highly recommended)

# Block 1B: Faculty of Physics (UB) (from 14 Oct to 22 Nov)

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
10:00-11:00					SEMINARS (A23M)
11:00-12:00					
12:00-13:00					
13:00-14:00					
14:00-15:00	INTRODUCTION TO PHOTONICS (A43M)	Quantum Optics (A43M) / Active and Spectral Imaging (A44M)	INTRODUCTION TO PHOTONICS (A43M)	Optoelectronics & Photovoltaic Technology (A43M)	Quantum Optics (A43M) / Active and Spectral Imaging (A44M)
15:00-16:00					
16:00-17:00	BEAM PROPAGATION AND FOURIER OPTICS (A43M)	Measuring with light (A43M)	BEAM PROPAGATION AND FOURIER OPTICS (A43M)	Measuring with light (A43M)	Photonics Materials and Metamaterials (A43M)
17:00-18:00					
18:00-19:00	Optoelectronics & Photovoltaic Technology (A43M)	Machine Learning on Classical and Quantum Data (A43M)	Photonics Materials and Metamaterials (A43M)	Machine Learning on Classical and Quantum Data (A43M)	BEAM PROPAGATION AND FOURIER OPTICS (A43M)
19:00-20:00					

**Notes:**  
 Courses that overlap on time cannot be chosen simultaneously (Quantum Optics and Active and Spectral Imaging)

## Blocks 1A and 1B: Exams.

	MONDAY 25 NOVEMBER	TUESDAY 26 NOVEMBER	WEDNESDAY 27 NOVEMBER	THURSDAY 28 NOVEMBER
14:00-17:00	INTRODUCTION TO PHOTONICS	QUANTUM OPTICS	BEAM PROPAGATION AND FOURIER OPTICS	PHOTONICS MATERIALS AND METAMATERIALS
17:00-20:00	ACTIVE AND SPECTRAL IMAGING	OPTOELECTRONICS & PHOTOVOLTAIC TECHNOLOGY	MACHINE LEARNING ON CLASSICAL & QUANTUM DATA	MEASURING WITH LIGHT

## Blocks 1A and 1B: Labs and Activities.

	FRIDAY 29 NOVEMBER	MONDAY 2 DECEMBER	TUESDAY 3 DECEMBER	WEDNESDAY 4 DECEMBER	THURSDAY 5 DECEMBER
LABS: 15:00-20:00	LABORATORY SESSION 3	LABORATORY SESSION 4	QUANTUM OPTICS	ACTIVE AND SPECTRAL IMAGING	PHOTONICS MATERIALS AND METAMATERIALS
ACTIVITIES: TBD	(UPC / UAB / UB)	(UPC / UAB / UB)	MEASURING WITH LIGHT	MACHINE LEARNING ON CLASSICAL & QUANTUM DATA	OPTOELECTRONICS & PHOTOVOLTAIC DEVICES

### Notes:

Different activities might be organized during these days.

The specific timetable for these activities will be coordinated by the corresponding professors

## Block 2: Campus Nord (UPC) (From 9 Dec to 21 Dec & from 7 Jan to 31 Jan)

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
10:00-11:00			SEMINARS (A4206)		
11:00-12:00					
12:00-13:00					
13:00-14:00					
14:00-15:00	VISUAL BIOPHOTONICS (A4 205) / ADVANCED QUANTUM OPTICS ... (A4 206)	NONLINEAR OPTICS (A4 205)	VISUAL BIOPHOTONICS (A4 205) / ADVANCED QUANTUM OPTICS ... (A4 206)	NONLINEAR OPTICS (A4 205)	INTEGRATED PHOTONICS (A4 205) / FROM TRAPPING TO COOLING ... (A4 206)
15:00-16:00					
16:00-17:00	BUSINESS AND PATENTS IN PHOTONICS (A4 205)	LASER SYSTEMS AND APPLICTIONS (A4 205)	Image Processing in Biophotonics (A4 205)	LASER SYSTEMS AND APPLICTIONS (A4 205)	BUSINESS AND PATENTS IN PHOTONICS (A4 205)
17:00-18:00					
18:00-19:00	FIBERS AND TELECOM (A4 205)	INTEGRATED PHOTONICS (A4 205) / FROM TRAPPING TO COOLING ... (A4 206)		FIBERS AND TELECOM (A4 205)	
19:00-20:00					

### Notes:

Courses that overlap on time cannot be chosen simultaneously (Visual Biophotonics and Advanced Quantum Optics; Integrated Photonics and From Trapping to Cooling ...)

## Block 2: Exams.

	MONDAY 3 FEBRUARY	TUESDAY 4 FEBRUARY	WEDNESDAY 5 FEBRUARY	THURSDAY 6 FEBRUARY	FRIDAY 7 FEBRUARY
14:00–17:00	VISUAL BIOPHOTONICS	LASER SYSTEMS & APPLICATIONS	IMAGE PROCESSING IN BIOPHOTONICS	NONLINEAR OPTICS	FROM TRAPPING TO COOLING...
17:00–20:00	ADV. QUANTUM OPTICS WITH APPLICATIONS	INTEGRATED PHOTONICS		FIBERS & TELECOM	

## Block 2: Labs and Activities.

	MONDAY 10 FEBRUARY	TUESDAY 11 FEBRUARY	WEDNESDAY 12 FEBRUARY	THURSDAY 13 FEBRUARY	FRIDAY 14 FEBRUARY
<i>LABS:</i> 15:00-20:00  <i>ACTIVITIES:</i> TBD	LABORATORY SESSION 5 (UPC / UAB / UB)	LASER SYSTEMS & APPL  INT. PHOTONICS  FROM TRAPPING TO COOLING...	FIBERS AND TELECOM  VISUAL BIOPHOT.  NONLINEAR OPTICS	IMAGE PROC. IN BIOPHOTONICS  ADV. QUANTUM OPTICS	LABORATORY SESSION 6 (UPC / UAB / UB)

### Notes:

Different activities might be organized during these days.

The specific timetable for these activities will be coordinated by the corresponding professors



# Block 3: Campus Nord (UPC) (From 17 Feb to 27 Mar)

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
10:00-11:00			SEMINARS (A3 101)		
11:00-12:00					
12:00-13:00					
13:00-14:00					
14:00-15:00	QUANTUM INFORMATION THEORY (A4 205) / MANAGING LIGHT WITH DEVICES (A4 206)	ULTRAFASST AND ULTRAINTENSE LIGHT (A4 205)	QUANTUM INFORMATION THEORY (A4 205) / MANAGING LIGHT WITH DEVICES (A4 206)	ULTRAFASST AND ULTRAINTENSE LIGHT (A4 205)	EXPERIMENTAL OPTICAL TECHNIQUES IN BIOLOGY (ICFO)
15:00-16:00					
16:00-17:00	BUSINESS AND PATENTS IN PHOTONICS (A4 205)	QUANTUM SIMULATORS (A4 205)	BUSINESS AND PATENTS IN PHOTONICS (A4 205)	QUANTUM SIMULATORS (A4 205)	
17:00-18:00					
18:00-19:00	NANOPHOTONICS (A4 205)	LASER APPLICATIONS IN REMOTE SENSING: LIDAR (A4 205)	NANOPHOTONICS (A4 205)	LASER APPLICATIONS IN REMOTE SENSING: LIDAR (A4 205)	
19:00-20:00					

**Notes:**  
 Courses that overlap on time cannot be chosen simultaneously (Quantum Information theory and Managing Light with Devices).

## Block 3: Exams.

	MONDAY 30 MARCH	TUESDAY 31 MARCH	WEDNESDAY 1 APRIL	THURSDAY 2 APRIL
14:00-17:00	QUAUTUM INF. THEORY	ULTRAFAST & ULTRAINTENSE LASER LIGHT	QUANTUM SIMULATORS	PHOTONICS SYSTEMS IN TELECOM
17:00-20:00	BUSINESS & PATENTS IN PHOTONICS	MANAGING LIGHT WITH DEVICES	NANOPHOTONICS	EXPERIMENTAL OPTICAL TECHNIQUES IN BIOLOGY

## Block 3: Labs and Activities.

	TUESDAY 14 APRIL	WEDNESDAY 15 APRIL	THURSDAY 16 APRIL	FRIDAY 17 APRIL	MONDAY 20 APRIL
LABS: 15:00-20:00	MANAGING LIGHT WITH DEVICES	QUANTUM INFORMATION	PHOTONICS SYST. IN TELECOM	LABORATORY SESSION 7  (UPC / UAB / UB)	LABORATORY SESSION 8  (UPC / UAB / UB)
ACTIVITIES: TBD	NANOPHOTONICS	BUSINESS AND PATENTS	EXPERIMENTAL OPTICAL TECHNIQUES IN BIOLOGY (ICFO)		
	QUANTUM SIMULATORS	ULTRAFAST & ULTRAINT. LASER LIGHT			

### Notes:

Different activities might be organized during these days.

The specific timetable for these activities will be coordinated by the corresponding professors-

## Block 4: Master Thesis (21 Apr to 10 Sep)

**BLOCK 4** is devoted to the Master Thesis work  
Final oral defense sessions will be organized in **July and September**

### Notes

#### **SEMINARS:**

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

#### **EXAMS AND EVALUATION PRECEDURE:**

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 Week schedule.

#### **OTHER POSSIBLE CIRCUMSTANCES**

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