Università Ca'Foscari Venezia
Dipartimento di Scienze Molecolari e Nanosistemi

MASTER'S DEGREE PROGRAMME IN ENGINEERING PHYSICS

Path Quantum Materials and Technology

outline 2026
regulation 2026

RECOMMENDED CAREER PLAN

Mandatory activities						
Recomm. year	**Semester**	**Code**	**Sector**	**Course**	**CFU**	**subtot. CFU**
1°	I	CM0600	IMAT-01/A	Nanotechnology and nanomaterials	9	54
1°	I	CM0603	PHYS-02/A	Physics of Complex Systems	9	
1°	I	CM0608	PHYS-03/A	Statistical Mechanics	6	
1°	II	CM0604	IINF-05/A	Advanced Computer Science	12	
1°	II	CM0602	IINF-01/A	Advanced Electronics	9	
1°	II	CM0599	MATH-05/A	Numerical Methods	9	
Optional activities (choose 2 12-CFU blocks)						
Recomm. year	**Semester**	**Code**	**Sector**	**Course**	**CFU**	**subtot. CFU**
1°	I	CM0605	IINF-03/A	Advanced Network and Communication Systems	6	24
2°	I	CM0606	PHYS-01/A	Quantum Optics	6	
1°	I	CM0649	IINF-01/A	Bioelectronics	6	
2°	I	CM1508	PHYS-01/A	Optoelectronic devices	6	
2°	I	CM0648	PHYS-03/A	Computational Physics	6	
2°	I	CM0601	IINF-05/A	Quantum Computation	6	
2°	I	CM0607	PHYS-03/A	Modern Condensed Matter Physics	6	
2°	I	CM0647	PHYS-01/A	Superconductivity And Quantum Materials Science	6	
Other activities						
Recomm. year	**Semester**	**Code**	**Sector**	**Course**	**CFU**	**subtot. CFU**
				12 elective CFU (*)	12	12
1°	I	ITA-B2		Italian for foreigners (*)	3	9
2°	II	CMST03		Internship		
2°	II	CMST06		Internship	6	
2°	II	CMPF21		Thesis	21	21

tot. CFU **120**

(*) Elective CFU

12 credits to choose among the interdisciplinary courses of this programme (not chosen beforehand) and/or among those offered for all the other postgraduate programmes of the University.

(*) The course 'Italian for Foreigners' (ITA-B2, 3 CFU) is aimed at those who do not have a certified B2 level of Italian language proficiency. Those who have already certified their proficiency may complete the programme with a further 3 CFU of internship (CMST03).

Università Ca'Foscari Venezia
Dipartimento di Scienze Molecolari e Nanosistemi

MASTER'S DEGREE PROGRAMME IN ENGINEERING PHYSICS

Path Physics of the Brain (*)

outline 2026
regulation 2026

RECOMMENDED CAREER PLAN

Mandatory activities						
Recomm. year	**Semester**	**Code**	**Sector**	**Course**	**CFU**	**subtot. CFU**
1°	I	CM0600	IMAT-01/A	Nanotechnology and nanomaterials	9	54
1°	I	CM0603	PHYS-02/A	Physics of Complex Systems	9	
1°	I	CM0608	PHYS-03/A	Statistical Mechanics	6	
1°	II	CM0604	IINF-05/A	Advanced Computer Science	12	
1°	II	CM0602	IINF-01/A	Advanced Electronics	9	
1°	II	CM0599	MATH-05/A	Numerical Methods	9	
Path activities						
Recomm. year	**Semester**	**Code**	**Sector**	**Course**	**CFU**	**subtot. CFU**
2°	I	CM0609	PHYS-O6/A	Experimental Biophysics	6	24
2°	I	CM0610	IBIO-01/A	Foundations of information theory and computational neurosciences	12	
2°	I	CM0611	BIOS-06/A	Integrative Neurophysiology	6	
Other activities						
Recomm. year	**Semester**	**Code**	**Sector**	**Course**	**CFU**	**subtot. CFU**
				12 elective CFU (*)	12	12
1°	I	ITA-B2		Italian for foreigners (*)	3	9
2°	II	CMST03		Internship		
2°	II	CMST06		Internship	6	
2°	II	CMPF21		Thesis	21	21

tot. CFU 120

(*) This path is open only to students selected through a specific call for applications

(*) Elective CFU

12 credits to choose among the interdisciplinary courses of this programme (not chosen beforehand) and/or among those offered for all the other postgraduate programmes of the University.

Elective courses recommended for the a.y. 2025/2026

Recomm. year	Semester	Code	Sector	Course	CFU
1°	I	CM0649	IINF-01/A	Bioelectronics	6
1°	II	CM0616	CHEM-03/A	Neurochemistry	6
2°	I	CM0617	IBIO-01/A	Neuroimaging	6

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Università Ca'Foscari Venezia
Dipartimento di Scienze Molecolari e Nanosistemi

MASTER'S DEGREE PROGRAMME IN ENGINEERING PHYSICS

Path Quantitative biology

outline 2026
regulation 2026

RECOMMENDED CAREER PLAN

Mandatory activities						
Recomm. year	**Semester**	**Code**	**Sector**	**Course**	**CFU**	**subtot. CFU**
1°	I	CM0600	IMAT-01/A	Nanotechnology and nanomaterials	9	54
1°	I	CM0603	PHYS-02/A	Physics of Complex Systems	9	
1°	I	CM0608	PHYS-03/A	Statistical Mechanics	6	
1°	II	CM0604	IINF-05/A	Advanced Computer Science	12	
1°	II	CM0602	IINF-01/A	Advanced Electronics	9	
1°	II	CM0599	MATH-05/A	Numerical Methods	9	
Optional activities (choose 2 12-CFU blocks)						
Recomm. year	**Semester**	**Code**	**Sector**	**Course**	**CFU**	**subtot. CFU**
1°	I	CM0649	IINF-01/A	Bioelectronics	6	24
2°	I	CM1506	BIOS-15/A	Bioinformatics	6	
1°	I	CM1505	PHYS-01/A	Systems Thinking in Biology	6	
2°	I	CM1507	BIOS-07/A	Computational biomolecular design	6	
1°	II	CM0616	CHEM-03/A	Neurochemistry	6	
2°	I	CM0617	IBIO-01/A	Neuroimaging	6	
Other activities						
Recomm. year	**Semester**	**Code**	**Sector**	**Course**	**CFU**	**subtot. CFU**
				12 elective CFU (*)	12	12
1°	I	ITA-B2		Italian for foreigners (*)	3	9
2°	II	CMST03		Internship		
2°	II	CMST06		Internship	6	
2°	II	CMPF21		Thesis	21	21

tot. CFU 120

(*) Elective CFU

12 credits to choose among the interdisciplinary courses of this programme (not chosen beforehand) and/or among those offered for all the other postgraduate programmes of the University.

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Università Ca'Foscari Venezia
Dipartimento di Scienze Molecolari e Nanosistemi

MASTER'S DEGREE PROGRAMME IN ENGINEERING PHYSICS

Path Physics of Finance

outline 2026
regulation 2026

RECOMMENDED CAREER PLAN

Mandatory activities						
Recomm. year	**Semester**	**Code**	**Sector**	**Course**	**CFU**	**subtot. CFU**
1°	I	CM0600	IMAT-01/A	Nanotechnology and nanomaterials	9	54
1°	I	CM0603	PHYS-02/A	Physics of Complex Systems	9	
1°	I	CM0608	PHYS-03/A	Statistical Mechanics	6	
1°	II	CM0604	IINF-05/A	Advanced Computer Science	12	
1°	II	CM0602	IINF-01/A	Advanced Electronics	9	
1°	II	CM0599	MATH-05/A	Numerical methods	9	
Path activities						
Recomm. year	**Semester**	**Code**	**Sector**	**Course**	**CFU**	**subtot. CFU**
1°	I	CM0612	ECON-05/A	Econometrics	6	24
2°	I	CM0613	STAT-01/A	Applied Probability	6	
2°	I	CM0614	STAT-04/A	Financial Mathematics	6	
2°	II	CM0615	ECON-02/A	Climate change and finance: metrics to assess risks and opportunities	6	
Other activities						
Recomm. year	**Semester**	**Code**	**Sector**	**Course**	**CFU**	**subtot. CFU**
				12 elective CFU (*)	12	12
1°	I	ITA-B2		Italian for foreigners (*)	3	9
2°	II	CMST03		Internship		
2°	II	CMST06		Internship	6	
2°	II	CMPF21		Thesis	21	21

tot. CFU 120

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12 credits to choose among the interdisciplinary courses of this programme (not chosen beforehand) and/or among those offered for all the other postgraduate programmes of the University.

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