Dobles Titulacions Internacionals

International Double Degrees

UNIVERSITAT POLITÈCNICA DE CATALUNYA
BARCELONATECH
Facultat d'Informàtica de Barcelona

Oscar Romero - Vicedegà d'Estudis de Postgrau
Anna Rio - Vicedegana de Relacions Internacionals

International Double Degree is the same as local Double Degree

YES & NO

- YES
- You get TWO degrees, one is your UPC Master Degree and the other one is from the Partner University

- NO
- (Almost) No extra workload or time

Current offer

Master in Artificial Intelligence

Escuela de Posgrado de la Pontificia Universidad Católica de Perú

Lima, Perú

Details :

- 2 semesters (September-June) at UPC (60 ECTS)
- 2 semesters (August-June) at PUCP (24 credits equivalents to 60 ECTS)
- Language at PUCP: English/Spanish
- You will obtain both the Master in Artificial Intelligence (FIB-UPC) and the *Magíster en Informática con la mención en Ciencias de la Computación.*

Conditions:

- To have passed the 60 ECTS of the first two semester of MEI or MAI at the moment for leaving.

UPC students (Master in Artificial Intelligence) studying at PUCP (Máster en Informática mención en ciencias de la computación)

Courses at UPC (MAI)			Créditos PUCP	ECTS UPC
S1 (September-January)	OBL	Computational Vision		5
	OBL	Introduction to Machine Learning		5
	OBL	Introduction to MultiAgent Systems		5
	OBL	Computational Intelligence		5
	OBL	Introduction to Human Language Technology		5
	OBL	Planning and Approximate Reasoning		5
S2 (February-June)	ELECTIVES	Among the 7 intensifications		30
Courses at PUCP (Mention in Computer Science)				
S3 & S4 (August - July)	OBL	Innovación Tecnológica, Desarrollo y Emprendimiento	3	
	OBL	Interacción Humano-Computador	3	
	OBL	Matemáticas para Computación	3	
	OBL	Gestión de Proyectos Informáticos	3	
	OBL	Metodología de la Investigación y Ética	3	
	OBL	Seminario de Investigación 2 (Master Thesis co tutelada)	9	

Master in Informatics Engineering

Escuela de Posgrado de la Pontificia Universidad Católica de Perú

Lima, Perú

Details :

- 2 semesters (September-June) at UPC (60 ECTS)
- 2 semesters (August-June) at PUCP (24 credits equivalents to 60 ECTS)
- Language at PUCP: English/Spanish
- You will obtain both the Master in Informatics Engineering (FIB-UPC) and the *Magíster en Informática con la mención en Ciencias de la Computación.* o *Ingeniería del Software*

Conditions:

- To have passed the 60 ECTS of the first two semester of MEI or MAI at the moment for leaving.

UPC Students (Máster en Ingeniería Informática) studying at PUCP (Máster en Informática mención en Ingeniería de Software)

Courses at UPC (MEI)			Créditos PUCP	ECTS UPC
S1 & S2 (September-June)	OBL	Arquitectura de Computadores de Altas Prestaciones		6
	OBL	Computación y Sistemas Inteligentes		6
	OBL	Desarrollo y Gestión de Sistemas de Información		6
	OBL	Internet, Seguridad y Distribución de Contenidos Multimedia		6
	OBL	Sistemas Empotrados y Ubicuos		6
	OBL	Sistemas Gráficos Interactivos		6
	OBL	Plan Estratégico y Gobierno de las Tecnologías de la Información		4,5
		Sostenibilidad, Economía y Compromiso Social		1,5
	OBL	Viabilidad de Proyectos Empresariales Innovadores		4,5
	OBL	Financiación de Proyectos Empresariales Innovadores		1,5
	OPT	Optativas del MEI excepto Interfaces y Accesibilidad (IA)		12
Courses at PUCP (Mention in Software Engineering)				
S3 & S4 (August -July)		Estadística y Experimentación en Informática	3	
	Tres entre estas	Interacción Humano-Computador	3	
		Calidad de producto de Software	3	
		Proceso de Construcción de software 2	3	
		Calidad del proceso de software	3	
		Métodos formales	3	
	OBL	Metodología de la investigación y Ética Seminario de Investigación 2 (Master thesis co-tutelada)	12	

UPC students (Máster en Ingeniería Informática) studying at PUCP (Máster en Informática mención en ciencias de la computación)

Courses at UPC (MEI)			Créditos PUCP	ECTS UPC
S1 & S2 (September-June)	OBL	Arquitectura de Computadores de Altas Prestaciones		6
	OBL	Computación y Sistemas Inteligentes		6
	OBL	Desarrollo y Gestión de Sistemas de Información		6
	OBL	Internet, Seguridad y Distribución de Contenidos Multimedia		6
	OBL	Sistemas Empotrados y Ubicuos		6
	OBL	Sistemas Gráficos Interactivos		6
	OBL	Plan Estratégico y Gobierno de las Tecnologías de la Información		4,5
		Sostenibilidad, Economía y Compromiso Social		1,5
	OBL	Viabilidad de Proyectos Empresariales Innovadores		4,5
	OBL	Financiación de Proyectos Empresariales Innovadores		1,5
	OPT	Optativas del MEI excepto Interfaces y Accesibilidad		12
Courses at PUCP (Mention in Computer Science)				
S3 & S4 (August -July)	OBL	Matemáticas para Computación	3	
	OBL	Minería Web	3	
	Una de las dos	Ingeniería y gestión del conocimiento	3	
		Técnicas avanzadas de Data Mining y Sistemas Inteligentes (si no se ha hecho TMD en UPC)	3	
	OBL	Interacción Humano-Computador	3	
	OBL	Metodología de la investigación y Ética Seminario de Investigación 2 (Master thesis co-tutelada)	12	

Master in Informatics Engineering

Université Clermont Auvergne

Clermont Ferrand, France

Details :

- Available for FIB students of the MEI.
- 2 semesters (september-june) at UPC (60 ECTS)
- 2 semesters (september-june) at ISIMA (30 ECTS from courses and 30 ECTS from TFM (9 project + 21 traineeship))
- Classes in English
- Upon completing the courses, two titles will be obtained:
  - Master of Science in Computer Science de la Université Clermont Aubergne
  - Màster en Enginyeria Informàtica (MEI) de la FIB

Conditions:

- 60 ECTS from the Master courses need to have been passed.
- Steps to follow
- English level requied: B2 or superior (students with a French level of B2 or higher, please contact vd.internacionals.fib@upc.edu

UPC students (from MEI) studying at ISIMA

Semester	Courses	ECTS credits
1	Foreign-Language Courses (English or French)	3
1	Fundamentals of Optimization	3
1	Algorithm and Complexity	3
1	Machine Learning and Data Mining	3
1	Seminar Series	3
1	Specialization Courses ((Five courses need to be taken from the two specialization areas: **decision science** and **data science**. The area from which the most courses are taken determines the specialization of the student.)	
1	Decision Science: Combinatorial Optimization at Work	3
1	Decision Science: Approximation Algorithms	3
1	Decision Science: Decision and Learning Under Uncertainty	3
1	Decision Science: Graph and Algorithms	3
1	Decision Science: Advanced Topics in Optimization	3
1	Data Science: High Performance Computing, Parallel Programming Models, Hybrid Computing, Numerical Reproducibility	3
1	Date Science: Advanced Topics in Machine Learning and Data Mining	3

1	Data Science: Knowledge Representation and Reasoning	3		
1	Data Science: Mobile Networks and Mobile Data Collection	3		
1	Data Science: Information System Security	3		
2	Research Project at CNRS Research Unit LIMOS	9		
2	Internship starting March 1st	21		

UPC MEI has a Final Master Thesis of 30 ECTS, which amounts to Research Project at CNRS Research Unit LIMOS (9 ECTS)+ Internship (21 ECTS).

Master in Innovation and Research in Informatics

Politecnico
di Torino

Torino, Italy

Details :

- Available for FIB students of the MIRI's specialization High Performance Computing (HPC) and for MIRI FIB students without specialization.
- 2 semesters (September-June) at UPC (60 ECTS)
- 2 semesters, (October-July), at POLITO (30 ECTS of subjects and 30 ECTS of Master Thesis).
- Classes are in English.
- At the end of the studies two graduation certificates will be obtained: Master in Innovation and Research in Informatics (MIRI) from FIB and Laurea Magistrale in Ingegneria Informatica from POLITO,

UPC students studying at POLITO

Semester	Courses	ECTS credits
1 & 2 (UPC)	Students from the following specializations can participate in the exchange: Advanced Computing, High Performance Computing, Computer Networks and Distributed Systems, Computer Graphics and Virtual Reality.	
	Concurrence, Parallelism and Distributed Systems	6
	Techniques and Methodology and Innovations and Research in Informatics	6
	Algorithmic Methods for Mathematical Models	6
	Seminars of Innovation and Research in Informatics	6
	Statistical Modelling and Design of Experiments	6
	All specialization compulsory courses	24 (18 for HPC*)
	One (two for HPC*) specialization complementary courses	6 (12 for HPC*)
		60

3 (POLITO)	Software Engineering II	6
	Information Systems Security	6
	3 courses from the following pool:	**18**
	Big Data: Architectures and Data Analytics	6
	Cloud Computing Technologies	6
	Computational Intelligence	6
	Distributed Systems Programming	6
	Human Computer Interaction	6
	Machine Learning for Vision and Multimedia	6
	Optimization Methods and Algorithms	6
	Challenge	8
	Convex optimization and engineering applications	6
	Digital control technologies and architectures	6
	Edge Computing Systems for AI and ML	6
	GPU programming	6
4 (POLITO)	Final Thesis	30
		60

Master in Innovation and Research in Informatics
Master in Data Science

Georgia Institute of Technology

Informative Session
November 6th

Atlanta, United States

Details :

- 5 places
- Available for FIB students of the MDS and MIRI degrees
- 1st year: 2 semesters (September – June) at UPC (60 ECTS)
- 2nd year:
  - Autumn semester: 30 ECTS at GT Europe Campus
  - Spring semester: Master Thesis at UPC
  - 5th semester (autumn): 30 ECTS at GT Atlanta Campus
- Classes in English
- When the studies are finalized, two titles are obtained: the Master in Data Science (MDS) or the Master in Innovation and Research in Informatics (MIRI), from FIB, and the Master of Science in Computer Science ("CS"), from Georgia Tech.
- During the semesters at GT Europe and GT Atlanta (3rd and 5th semester), enrolment taxes are paid at destination, as well as transport, housing, and daily expenses. During the other semesters, enrolment taxes are paid at UPC.

Master in Innovation and Research in Informatics
Master in Data Science

Georgia Institute of Technology

Informative Session
November 6th

Conditions:

- 1 st course of MDS or MIRI must have been passed
- Minimum GPA of 3.5/4.0 (GPA = General Point Average)
- Strong recommendation letters
- GRE: minimum grade:
    - Verbal > 153/170
    - Quantitative > 155/170
    - Analytical Writing > 3/6
- Accredited English level (not older than 2 years):
    - IELTS≥ 7.5 (minimum grades of 6.5 in Reading, Listening and Speaking sections, and 5.5 in Writing section)
    - TOEFL iBT ≥ 90 (each section must have 19 points or above)
    - TOEIC > 850

Available advantages:

Atlanta Campus:

- Teaching Assistantships available on a competitive basis in Computer Science: Tuition waiver with ~2,000 $ monthly stipend.

Europe Campus:

- Teaching assistantship available, tuition waiver or 66% tuition waiver.

MIRI UPC students studying at GEORGIA TECH

1 and 2 semesters at FIB-UPC:	**ECTS***
First year of MIRI, including all (30 ECTS) mandatory common courses: *Algorithmic Methods for Mathematical Models* *Concurrence, Parallelism and Distributed Systems* *Statistical Modelling and Design of Experiments* *Techniques and Methodology of Innovation and Research in Informatics* *Seminars of Innovation and Research in Informatics*	60
3 and 5 semesters at Georgia TECH (1 GT Europe + 1 Georgia Tech Atlanta)**:**	**ECTS***
30 credit hours of any of the three eligible specializations (except for equivalences):* • *Computational Perception and Robotics* • *Interactive Intelligence* • *Machine Learning*	60
4 semester at UPC (master thesis)	**ECTS***
TFM (enrolled and defended at FIB-UPC)	30
TOTAL	**150**

* Correspondence between Georgia Tech credits and ECTS credits: 1 GeorgiaTech credit = 2 ECTS credits.

UPC students will take 90 ECTS in the FIB-UPC and 60 in GT (12 ECTS of possible credit transfer).

***Equivalences**			
MIRI-Specialization	ECTS	CS-Georgia Tech	Credit Hours
Randomized Algorithms	6	Randomized Algorithms	3
Computational Complexity	6	Computational Complexity Theory	3
Combinatorial Problem Solving	6	Computability, Algorithms, and Complexity	3

MDS-UPC students studying at GEORGIA TECH

1 and 2 semesters at FIB-UPC	**ECTS***
First year of MDS, including all (54 ECTS) mandatory common courses: *Algorithms, Data Structures and Databases* *Statistical Inference and Modelling* *Data Warehousing* *Multivariate Analysis* *Process-Oriented Data Science* *Big Data Management* *Semantic Data Management* *Machine Learning* *Mining Unstructured Data*	60
3 and 5 semesters at Georgia TECH (1 GT Europe + 1 Georgia Tech Atlanta):	**ECTS**
30 credit hours from any of the three eligible specializations (except for equivalences):* • *Computational Perception and Robotics* • *Interactive Intelligence* • *Machine Learning*	60
4 semester at UPC (master thesis):	
TFM (enrolled and defended at FIB-UPC)	30
TOTAL	**150**

***** Correspondence between Georgia Tech credits and ECTS credits: 1 GeorgiaTech credit = 2 ECTS credits.

UPC students will take 90 ECTS in the FIB-UPC and 60 in GT (12 ECTS of possible credit transfer).

***Equivalences**			
MDS- Mandatory	ECTS	Georgia Tech	Credit Hours
Algorithms, Data Structures and Databases	6	Computability, Algorithms, and Complexity	3
Data Warehousing	6	Big Data Systems & Analysis	3
Multivariate Analysis	6	Computational Statistics	3
Big Data Management	6	Big Data Systems and Analytics	3
Machine Learning	6	Machine Learning	3
Mining Unstructured Data	6	Natural Language	3

Master in Data Science

Institut National Universitaire Jean-François Champollion (INU Champollion)

ISIS INGÉNIEURS CASTRES

Castres, França

Details :

- Available for MDS students, from the FIB.
- 2 semesters (september-june) at UPC (60ECTS).
- 3 semesters (september-june-december) at ISIS (60 ECTS from courses).
- 1 semester (february-june) at UPC (30 ECTS from TFM).
- Classes are in French
- Upon finalizing this courses, two titles are obtained:
  - Master in Data Science (MDS) in FIB (Màster en Ciència de Dades (MDS) de la FIB)
  - Ingénieur en Informatique pour la santé d'ISIS-INU Champollion

Conditions:

- 60 ECTS of the 1st Master year must have been passed
- Steps to follow

Objectifs du cycle

> MAÎTRISER L'INGÉNIERIE INFORMATIQUE ET CONNAITRE LES SYSTÈMES D'INFORMATION

> S'INTÉGRER DANS UNE ÉQUIPE PROJET

> SAVOIR RÉDIGER UN CAHIER DES CHARGES, EFFECTUER L'ANALYSE DES BESOINS, GÉRER LE CYCLE DE VIE D'UN DÉVELOPPEMENT LOGICIEL, DEPUIS L'EXPRESSION DES BESOINS JUSQU'À LA MISE EN OPÉRATION ET MAINTENANCE

> ACQUÉRIR LES COMPÉTENCES REQUISES POUR UN CHEF DE PROJET INFORMATIQUE

> POSSÉDER LES COMPÉTENCES POUR CONDUIRE LE CHANGEMENT ET L'INNOVATION DANS LE SECTEUR DE LA SANTÉ

UPC students studying at ISIS

UPC students complete the first year at UPC before moving to ISIS. In the table, the three semesters to spend at ISIS (the master thesis is conducted back at UPC).

Semester	Courses	ECTS credits	Equivalent subject at the UPC	ECTS credits at UPC
1 Fall Semester at ISIS	E4-1-BG1 Application	2		2
	E4-1-SMP1 Santé	4		4
	E4-1-SHS1 Entrepreneuriat	3		3
	E4-1-ISC1 Informatique	5		5
2	E4-2-ISC2 Information Systems for e-Health	5		5
	E4-2-PTJ Projet tuteuré	4		4
	E4-2-BG1 Big Data and A.I.	3		3
	E4-2-ISC1-3 Deep Learning	2		2
	E4-2-STG Internship	6		6
3	E5-1-UIH Health Information Systems and Interoperability	5		5
	E5-1-KMB Knowledge Management	4		4
	E5-1-PJT Innovation Project	10		10
	E5-1-COM Languages, Ethics, Legal issues	3		3
	E5-1GFH Hospital management	4		4

Students from UPC move to ISIS at the fall semester. Therefore, they arrive in September to ISIS. The numbering above refers to the first semester once they arrive and the subsequent ones after that. The master thesis must be done back at UPC.

Master in Data Science

UNIVERSITÀ DEGLI STUDI DI PADOVA

Padova, Itàlia

Details :

- Available for MDS FIB students.
- 2 semesters (September - June) at UPC (60 ECTS)
- 2 semesters, last year (October - July) at UniPD (30 ECTS of courses and 15 ECTS of TFM + 15 ECTS of internships).
- Classes in English.
- Two degrees are awarded at the end of the studies: the Master of Science degree in Data Science (MDS) from the FIB and the Master of Science degree in Data Science from the UniPD (Laurea Magistrale in Data Science).

Conditions:

- You must have passed 60 ECTS credits of the courses specified in the agreement.
- Pathway to follow during the 1st year at the FIB.
- Accredited level of English: B2 or higher.

UPC students studying at UNIPD

	First Semester	ECTS
1st Year at FIB	Process-Oriented Data Processing	6
	Algorithms, Data Structures and Databases	6
	Data Warehousing	6
	Statistical Inference and Modeling	6
	Multivariate Analysis	6
	Second Semester	
	Big Data Management	6
	Semantic Data Management	6
	Mining Unstructured Data	6
	Machine Learning	6
	Elective	6
2nd Year at UNIPD	**First Semester**	**ECTS**
	Stochastic Methods	6
	Law and Data	6
	Vision and Cognitive Systems	6
	Elective	6
	Elective	6
	Second Semester	
	Master Thesis	15
	Internship	15

Pool of Elective Courses at FIB during Second Semester of First Year		
Algorithms for Data Mining	Cloud Computing and Data Analytics	Techniques and Methodology of Innovation and Research
Viability of Business Projects	Innovation Project	

or any other elective course offered when the mobility takes place

Pool of Elective Courses at UNIPD during First Semester of Second Year		
Network Science	Cognition and Computation	Business Economics and Financial Data
Human Data Analytics	Bioinformatics	

Costs

Payment at UPC (Regular taxes) + Erasmus+ Grant	Payment at Host Univeristy (Tuition)
INP ISIMA	PUCP (Special University grant may be available)
Polito	Georgia Tech (Assistantship and some credit transfer may be available)
INU ISIS	
Padova	

Questions?

Check the webpage
https://www.fib.upc.edu/en/mobility/double-degrees

Contact us
fib.rel.int@upc.edu