

# Double Degree in Data Science and Management and Business Administration

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Why should I study this double Degree at UPNA?

## Teaching innovation

Studying this degree at UPNA leads to the acquisition of competences and skills highly demanded in the labour market, such as oral communication, work in multidisciplinary teams, entrepreneurship and innovation.

This double degree contains a large amount of practical credits, nearly 50% of the total in some semesters. Besides, it includes active teaching methodologies, such as project-based learning, in subjects belonging to both Data Science and Management and Business Administration. Assessment methods are adapted to each subject in order to contribute to the learning in the most experimental areas. To complete this practical approach, the Higher Technical School Of Agricultural Engineering and Biosciences (ETSIAB) fosters participation in national and international activities and competitions of entrepreneurship and introduction to science.

### Entrepreneurial group

ETSIAB supports an entrepreneurial group which consists of students interested in developing competences such as creativity, innovation and entrepreneurship.

### Plan tutor/mentor

You may count on a teacher-mentor or student-mentor to support you throughout your studies thanks to the programmes planned by ETSIAB for its degrees.

## Internationalisation

International mobility allows you to study for a semester or a full academic year in another country, thus improving your language and team-working skills in different environments. The Higher Technical School of Agricultural Engineering and Biosciences and the

## You are interested if:

- You are attracted to the business world and technology, and follow with interest how big technological companies have grown in the last few years.
- You want to see how artificial intelligence is applied to the business world.
- You like business, maths and IT, and want to learn how to combine those three areas.
- You are interested in entrepreneurship in companies based on computing and artificial intelligent, as well as in adapting the existing ones to the new technologies.
- You want to understand how technological companies develop and do business, both from the productive and business point of view.
- You see your future in the artificial intelligence world and want to study its application to society and economy.
- You want to know analysis and investment intelligent systems in different kinds of markets.

## When you get your diploma you can:

- Access jobs within the artificial intelligence or business management scopes.
- Apply mathematical and computing models to business contexts.
- Work as a manager in small companies and start-ups, or even set up your own.
- Focus your career towards a free exercise of the profession of business management.
- You can also take advantage of all the professional paths of the Data Science degree and Management and Business Administration.

School of Economics and Business Administration have signed collaboration agreements with over 50 universities all over the world. In this double degree you may apply to stay abroad for a semester to study Data Science, and another one for Management and Business Administration.





## Internships at companies

UPNA has signed agreements with different entities and institutions which will allow a large amount of students to perform internships in public or private companies related with the Data Science and Management and Business Administration areas.

## Employability

Technology-based companies have risen to the first positions in the rankings of the most valuable or valued companies. These companies design the products that make a difference to our lives, and provide services which are changing the social, business and technological scenery. Business, funding and growth models of technological companies tend to be ground-breaking, so they are being adopted by more mature companies in consolidated sectors. The understanding of this changing world, in

which technological corporations play a fundamental role, requires to study the technology which introduces change, but also that of company practices which have supported the growth of companies. This degree teaches students the latest computing and artificial intelligence techniques, as well as the fundamentals and functioning of the business world.

The possible work paths opening for students is really wide, from starting as a double expert in big companies, to becoming a technological entrepreneur, or working in the bank, consultancy or governing institutions areas.

## Subjects - 360 ECTS (six academic years)

<b>1</b>	S1	Linear algebra	Calculus I	Biology	Programming	Introduction to data science	Business economic
	S2	Statistics I	Physics fundamentals	Data structure	Discrete mathematics	Calculus II	
<b>2</b>	S3	Statistics II	Arithmetic	Ordinary differential equations	Introduction to economics	Financial operations	
	S4	Financial accounting I	Applied economics	Microeconomics	Numerical methods	Complex variable and fourier analysis	Databases I
<b>3</b>	S5	Introduction to private law	Financial accounting	Genetics fundamentals	Object-focused programming	Optimisation I	Data preparation Statistical modelling
	S6	Commercial management I	Financial markets and Instruments	Concurrent and distributed programming	Optimisation II	Advanced statistical modelling	Multivariate analysis and visualisation of data
<b>4</b>	S7	Databases II	Automatic learning	Commercial management II	Financial management I	Operations management	Industrial organisation and strategic competence
	S8	Trade law	Business economic history	Human resources management	Management accounting	Company tax system	
<b>5</b>	S9	Cryptography	Optimisation III	Deep learning	Knowledge extraction	Simulation	
	S10	Strategic management	Financial management II	Market research	Science and society	Big data	
<b>6</b>	S11	Organisational design and behaviour	Macroeconomics	Accounting information analysis	End-of-degree project (Data science)	End-of-degree project (Management and business administration)	

108 ECTS Core subjects  
240 ECTS Mandatory subjects

12 ECTS End-of-degree project



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