

MASTER'S PROGRAM
IN BIG DATA
TECHNOLOGY AND
GPS USE IN SPORTS



BIG DATA TECHNOLOGY AND THE USE OF GPS IN SPORTS



INDEX

3 **PRESENTATION**
Definition & Objectives

5 **MAIN INFORMATION**
Units

7 **STUDY PLAN**
Credits

9 **METHOD**
Types of directed work

12 **EVALUATION**
Enrollment process

16 **PROFESSIONAL OPPORTUNITIES**
Employment opportunities

PRESENTATION

If you want to be part of the staff in charge of further raising the technical and logistical capacity of the teams.

Master's Degree in BIG DATA Technology and the use of GPS in Sports

is an excellent option that will give you the necessary tools to analyze the potential in the elements and prioritize the strategies to follow.

**INNOVATIVE PROGRAM BASED
ON TRENDS IN THE WORLD OF
SPORTS**

What is **BIG DATA TECHNOLOGY AND THE USE OF GPS IN SPORTS?**

It is applied to collect useful information derived from public and private programs and equipment that generate data associated with the sport discipline. On the other hand, the addition of GPS provides data to verify the competitor's route, performance, transfer capacity and speed, among many other elements.

OBJECTIVES

- Allow the student in Data Science.
- Provide knowledge in Big data and sports. Train in the use of programs and data languages such as Python, SQL, among others.
- Encourage data analyst thinking, to solve problems associated with the team.
- Develop programs for the analysis and interpretation of information, through the use of programming language.
- Define the architecture of big data in sports.
- Know and handle the different storage technologies such as NoSQL, among many others, to know how to select and apply them correctly.
- Recognize the tools to visualize projects, based on technological data.
- Correctly handle commercial and communication tools to expand the business, in an attractive and highly effective way.

KEY INFORMATION

MASTER'S DEGREE ISSUED BY THE UNIVERSIDAD CATÓLICA DE ÁVILA



ONLINE LESSONS

Access to the content 24/7,
during 9 months of course,
60 ECTS (1,500 teaching hours).



OFFICIAL TITLE

Approved by the Catholic University of
Avila.
- Validity: outside and inside Spain



LANGUAGES

Taught in 2 languages:
Spanish and English



FINANCIATION

Up to 12 months

START AND REGISTRATION: IMMEDIATE

Training units: 7

This degree has the same validity outside and inside Spain, since it is a curricular title of studies, and covered by the Organic Law of Universities. No specific homologation or accreditation is required, since the Universities have the capacity to issue their own degrees, as stated in article 2.g) of the Organic Law of Universities 6/2001.

INFORMATION ON TRAINING UNITS

The training units have an average duration of 6 ECTS credits, including the activities of that unit, the teaching methodology is accompanied by demonstrative videos by teachers and experts, as well as complemented by visual presentations, articles of interest and interviews with professional technicians, to achieve an effective, deep and attractive learning.

It also includes continuous evaluations of activities by the professors.

Finally, the master's degree includes a final project of 5 ECTS credits based on real cases.

STUDY PLAN

Module 1: Introduction to technology in sport

Module 2: The importance of the use of GPS in sport

Module 3: The GPS as an analysis tool in training

Module 4: System mediation, data analysis and decision-making

Module 5: Application of data findings to maximize performance

Module 6: Use of GPS and technological tools for measurement and analyzing

Module 7: Final project

TARGET AUDIENCE

- **Technicians who have experience in soccer.**
- **Coaches who are graduates.**
- **Graduates or graduates in Physical Activity and Sports Sciences.**

Each of the program's lines of action are aimed at capturing and developing talent and aptitude in soccer.

METHOD

VIRTUAL CLASSROOM | LEARNING COMMUNITY

DISCOVERY-INDUCED ACTIVITIES

The activities in which the student will be able to carry out a contextualized learning by working, in the Virtual Classroom and in a collaborative way, a real or simulated situation that will allow him/her to make a **first approach to the different topics of study.**

PRACTICAL APPLICATION ACTIVITIES

Includes problem-solving, project development and similar activities that allow the **application of the conceptual, procedural and attitudinal aspects worked on in other parts of the courses.**

INTERACTION AND COLLABORATION ACTIVITIES

The activities in which different topics related to the subjects of each subject will be discussed and argued, and which will serve to **guide the process of induced discovery.**

PRESENTATIONS AND EXERCISES

It includes the joint elaboration in the Virtual Classroom and, if applicable, the virtual defense of the assignments and exercises requested in accordance with the defense procedures established in the **teaching guides.**

SEMINARS

Includes face-to-face or virtual attendance to small group sessions, dedicated to specific topics of each subject.

METHOD

VIRTUAL CLASSROOM : STUDENT-TUTOR INTERACTION

TUTORIES

They allow direct **interaction between teacher and student** for the resolution of doubts and individualized advice on different aspects of the subjects.

PRESENTATIONS AND EXERCISES

It includes the individual preparation and, if necessary, virtual defense of the requested papers and exercises, in accordance with the defense procedures established in the teaching guides.

EVALUATION ACTIVITIES

More information can be found in the "**Evaluation**" section on page 12 of this Master's program.

METHOD

AUTONOMOUS WORK OF THE STUDENT

INDIVIDUAL WORK ACTIVITIES

Individual work of the materials used in the subjects, although supported by the resolution of doubts and construction of knowledge through a forum enabled for these purposes.

This activity will be **the basis for the development of debates, problem-solving, etc.**

PRACTICAL APPLICATION ACTIVITIES

It includes **personal** work in problem-solving, project development and similar activities that allow the **application of the conceptual, procedural and attitudinal aspects worked** in the other parts of the course.

CRITICAL READING, ANALYSIS AND RESEARCH

These are activities in which the student approaches the different fields of study with a critical eye that allows an approach to research. **Examples include book reviews or critiques of articles and research projects.**

EVALUATION

The student chooses the following evaluation system, according to his or her personal situation and training needs:

Continuous evaluation + TFM

60% of the final grade is due through the activities which should be done through the course and that will be assessed in "continuous evaluation"; the student's completion of these activities will be subject to a verification by the professors.

The remaining 40% of the last grade will be obtained from the Master's Final Project (TFM) to be carried out at the end of the course.

The FINAL project will include all the areas studied and will always involve the development of a real case, since from **FutbolLab** we want our courses to be directed to the real training situation that coaches find in their teams.

EVALUATION

VIRTUAL CLASSROOM

The course is taught entirely in online mode. They will be conducted through our virtual campus that is accessed from **the official website of Futbollab** (**www.futbollab.com**).

From there you will be able to use the syllabus, explanatory presentations, demonstrative videos, analysis of the teachers, assignments that the teachers will send and correct.

TUTORS

The teachers offer **continuous tutoring**, establishing telephone and/or videoconference tutorials explaining any doubts that may arise. They will guide your training evolution throughout the course, depending on your profile and level of dedication or study schedule.

As we have indicated, **the syllabus, videos, articles, interviews with experts... are part of your evolution in the course, so you will do periodic exercises that are corrected by the teacher** to give you a clearer idea of the subject being worked on.

ENROLLMENT PROCESS

To enroll you only have to click on the **Enroll** tab, from there you will be asked to enter your personal data necessary for the academic record and in the last part of the process you will be able to choose the payment format of this program.

Remember that in this course you can go at your own pace and complete it according to your availability, as long as you do not exceed the greatest time to complete it, which in the case of the master's degree is **2 and a half years**. However, if you still need more time, you must ask authorization from the admissions department to extend the time. If you get a positive response, the new time will be automatically extended.

PROFESSIONAL OPPORTUNITIES

With this Master, you will learn advanced techniques of soccer fundamentals, but you will also have access to opportunities so that, once you graduate, you will be able to take part in different institutions. **This is a great advantage, since you will have. The** opportunity to work in:

- Professional soccer clubs.
- Personal trainer of soccer players.
- Athletes' federations.

You will be able to alternate with different sports federations within prestigious soccer clubs, among many other organizations, to promote your skills and your growth in the field.

PROFESSIONAL OPPORTUNITIES

JOB OPPORTUNITIES

Upon completion of the course, you will enter a large database so that you can apply for a job in **Technology, BIG DATA and the use of GPS in sports.**

Our prestigious platform has national and international reach, and is constantly visited by a variety of soccer clubs in search of trained professionals, offering excellent salaries.

With your registration, you are already on your way to becoming part of the most select soccer team in the world. Not only will we give you the academic tools, but we will also introduce you to the most demanded and best paid labor field in the sport.

Don't think twice and start your career towards success.

