midwest
COLLEGE

PG
DIPLOMA IN
BUSINESS
INTELLIGENCE

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UCAM
UNIVERSIDAD
Católica de Murcia

EXEED
ecx
YOUR GLOBAL VARSITY

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ABOUT
EXEED ECX

Exeed ECX is a spin-off of Exeed College - a prestigious entity of higher learning and executive education from Westford Education Group. Exeed ECX provides a unique learning method through its satellite centres via blended learning. Exeed ECX, with its world-class academics, has accreditation and partnerships with the world's premium universities and awarding bodies. Plymouth Marjon University is a top-ranked, accredited university in the UK that collaborated with Exeed ECX. Other major universities collaborating with Exeed ECX are Universidad Católica de Murcia (UCAM) in Spain, Acacia University in the USA, and GEX Business School in France. Apart from this, our parent organisation Exeed College has tie-ups with universities across the globe – UCAM (Spain), Liverpool John Moores University (UK) and Carolina University (US) as well as with professional accreditation bodies like Scottish Qualifications Authority (SQA), Chartered Management Institute (CMI), Society for Human Resource Management (SHRM) and Cambridge International Qualification to provide globally recognised qualifications

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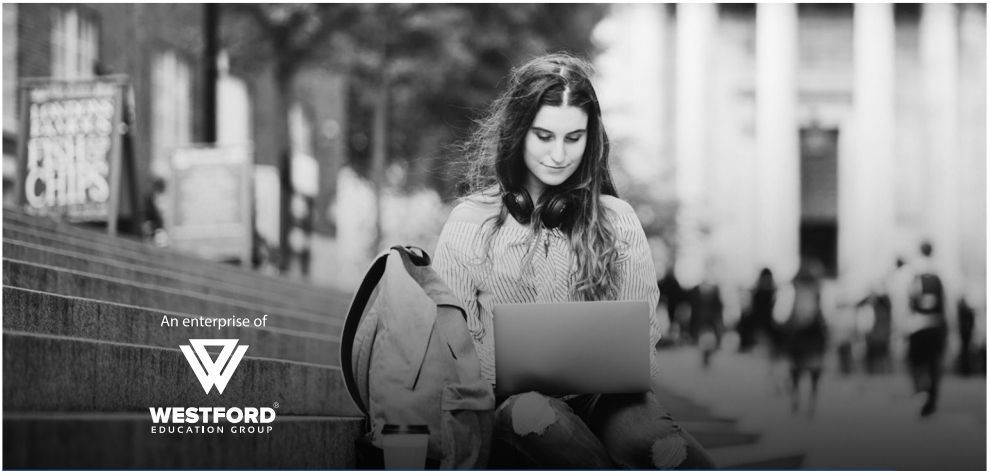
WESTFORD
EDUCATION GROUP

ABOUT **WESTFORD** EDUCATION

Westford Education Group (WEG) is a leading provider of accredited international education to aspiring learners across the globe. Headquartered in the UK, WEG is a pioneer in providing various Academic Degrees, Professional Certificates and Diploma courses in association with international accredited and recognized organizations and universities.

The study programs offered at WEG range from Undergraduate to Doctoral level consisting of master's, post graduate diplomas and doctoral degrees. WEG also provides specialized courses such as Doctor of Business Administration, Doctorate in Management, and Master of Business Administration (MBA) to name a few. Our core competence lies in providing higher National diplomas and professional certificate courses encompassing a wide range of domains specific to various industries.

Westford is fast emerging as a reputed brand of global education providers. WEG comprises 9 independent brands, 7 brands of Higher Education, 2 brands of K-12 education, and 1 brand operating in Sports Management.

ABOUT UCAM

Universidad Católica de Murcia (UCAM), founded in 1996, is a fully-accredited European University based out of Murcia, Spain. With learning centres in the Middle East and Southeast Asia, UCAM aims to provide students with the knowledge and skills to serve society and contribute to the further expansion of human knowledge through research and development.

The university offers various courses, including 30 official bachelor's degrees, 30 master's degrees and ten technical higher education qualifications through its Higher Vocational Training Institute, in addition to its in-house qualifications and language courses. The programmes offered are distinguished in Europe and worldwide, with good graduate employability prospects as well.

UCAM is accredited by ANECA (National Agency for Quality Assessment and Accreditation of Spain) and the Ministry of Education regarding 17 of its undergraduate degrees.

Key features:

- A fully accredited European University
- Spain's number two private university in academic output and quality
- Recognised by the European Higher Education Area
- Agreements with 167 universities around the world
- First Spanish university to secure accreditation from ANECA
- Four stars in the QS Stars rating system

UCAM

UNIVERSIDAD CATÓLICA
DE MURCIA
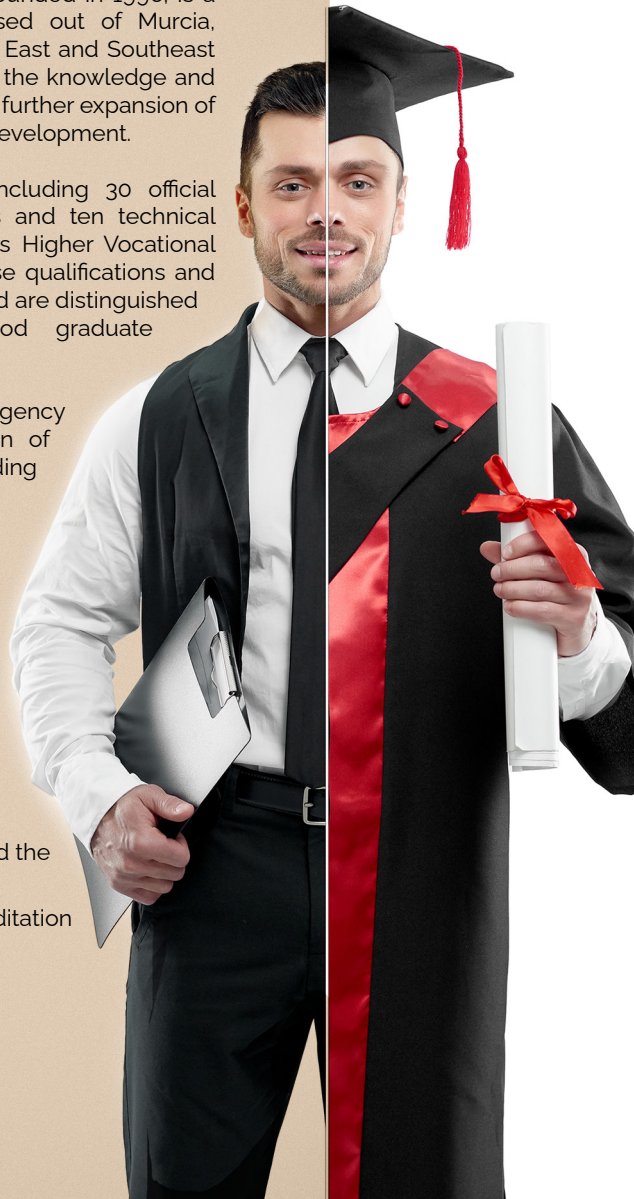
PROGRAM OVERVIEW

PG DIPLOMA IN BUSINESS INTELLIGENCE

This course provides an overview of the technology of Business Intelligence (BI) and the application of Business Intelligence to an organization's strategies and goals.

Business Intelligence (BI) refers to technologies, applications, and practices for the collection, integration, analysis, and presentation of business information. The purpose of business intelligence is to support better business decision-making. This course provides an overview of the technology of BI and the application of BI to an organization's strategies and goals.

Course Duration: **9 Months |** Course Modules: **6 Modules**

PROGRAM STRUCTURE

MODULE 1

CREDITS : 20

HANDS-ON CORE PYTHON & PYTHON LIBRARIES

Basic Python Programming

- Variable & data types
- Conditional statements
- Loops
- Functions

Essential Python libraries for data

- Pandas
- Numpy
- Matplotlib

LEARNING OUTCOMES

- **L01** Learning python structure and how to write programs in it
- **L02** Basic concepts of Python, its syntax, functions, and conditional statements
- **L03** Operate Pandas to sort through and rearrange data, run analyses, and build data frames
- **L04** Understand packages to enable them to write scripts for data manipulation and analysis

MODULE 2

CREDITS : 20

MATHEMATICS AND STATISTICS FOR DATA TREATMENTS

- **Linear algebra**
- **Probability**
- **Statistics**
- **Data Cleaning**
- **Data Pre-processing**
- **Statistical tools**
  CSV
  Excel

LEARNING OUTCOMES

○ **L01** Introduce statistical tools for working with datasets

○ **L02** Learn the essentials of probability and statistics for data analysis & visualization

○ **L03** Know how to import and clean data using libraries like NumPy and Pandas for data exploration and analysis

○ **L04** Learning to fix incorrect, corrupted, incorrectly formatted, duplicate, or incomplete data within a dataset

MODULE 3

CREDITS : 20

DATA VISUALIZATION AND DATABASE MANAGEMENT (SQL)

○ **Data visualization introduction**
○ **Configuring Data Environment**
○ **Types of charts**
○ **Introduction to Database concepts**
○ **Database Environment**
○ **PostgreSQL Setup**
○ **Joins and Sub Queries**
○ **PostgreSQL Connectivity**
○ **Relational Model**

○ **Entity Relationship Model**
○ **ORM Overview**
○ **Basic SQL Tables**
○ **DB creation**
○ **Data modeling**
○ **Constraints and Data Manipulation**
○ **SQL CRUD operations**
○ **Django's Database CRUD Operations**
○ **Exploratory Visualization**

LEARNING OUTCOMES

○ **L01** Acquire a fundamental understanding of the analytical techniques and software tools necessary to effectively generate useful information from structured and unstructured datasets of any size charts

○ **L02** Gain experience in using the tools and techniques of Business Intelligence to structure and complete projects focused on obtaining actionable insights from complex data

- **L03** Dive deeply into a chosen area of practice to fully prepare to use the knowledge gained in the program to add significant value in a professional setting

- **L04** Be able to utilize knowledge and skills to continue learning and adapting to new data science technologies

MODULE 4

BUSINESS INTELLIGENCE WITH DATA VISUALIZATION TOOLS

- **What Is Business Intelligence**
- **Applications and use cases of Business intelligence**
- **BI in Decision Making**
- **PowerBI**
- **Tableau**
- **Plots**
- **Charts**
- **Data, Model & Report Views**
- **Making Report Views**

- **Data Visualization**
- **Tableau Query Editor**
- **Dashboard design principles**
- **Dashboard interactivity**
- **Connected "drill-down" dashboards**
- **Advanced Tableau**
  Large datasets
  Fiscal Year Calculations
  Parameters

LEARNING OUTCOMES

- **L01** Describe the ideas and elements of Business Intelligence (BI) and critically examine the usage of BI for assisting decision-making in a business

- **L02** Learn to shape and transform your data before the data analysis using Tableau Query Editor

- **L03** Filter the information in your reports by location and control how these filters interconnect and interact with other visuals in your report

- **L04** Learn how to design a dashboard using a real dataset, several types of data visualization, PowerBI plots/charts, including Tableau's Data, Model, and Report views

SPECIALIZATION MODULE 01

INTRODUCTION TO DATA MINING

- Data understanding
- Decision trees
- Regression analysis
- Cluster Analysis
- Introduction to Data mining
- Artificial Neural Networks
- Association Rule Mining
- Data Mining in a Python-based environment
- What is a data warehouse
- How to find patterns?
- Affinity Analysis
- Product Recommendation
- Text mining
- Web mining
- Data Preparation
- Data Modeling
- Identifying Patterns
- Data warehousing

LEARNING OUTCOMES

- **L01** Discuss the fundamental data mining concepts such as classification, clustering, regression, and unsupervised learning

- **L02** Introduction to data mining algorithms

- **L03** Understanding the data mining process and techniques

- **L04** Engaging in meaningful discussions about pattern evaluation metrics and investigating techniques for mining various patterns, including sequential and sub-graph patterns

SPECIALIZATION MODULE 02

MACHINE LEARNING ALGORITHMS

- Introduction to Machine Learning
- Machine Learning Algorithms
- Feature Selection
- Git Version Control System
- Supervised Learning
- Unsupervised Learning
- ML Deployment

LEARNING OUTCOMES

○ **L01** Learn about training data, and how to use a set of data to discover potentially predictive relationships

○ **L02** Master machine learning techniques, including supervised and unsupervised learning and hands-on modeling, rounding out your artificial intelligence education

○ **L03** Learn popular machine learning algorithms, Feature Selection, and the Mathematical intuition behind them

○ **L04** Learn the basics of HTML/CSS, and Git version control system (VCS) to Build and Deploy a model for WebView

CAPSTONE PROJECT

CREDITS : 60

○ **Clarifying the terms of the research**

○ **Suggested areas of reading**

○ **Apply the knowledge base and abilities taught throughout the course to a real-world scenario**

○ **Identify the methodology or algorithm that will handle the proposed challenge**

○ **Establishing a research timetable, including initial dates for further meetings between the student and supervisor**

○ **Advising students about appropriate standards & conventions concerning the assessment**

○ **Providing means of contact in addition to tutorials**

○ **Educate learners to research and write their results and thoughts correctly, clearly, logically, and to a high-professional degree**

LEARNING OUTCOMES

○ **L01** Conduct independent research and development within the context of Business Intelligence

○ **L02** Produce detailed documentation to a standard expected of a professional in the field of Business Intelligence

○ **L03** Data modeled to fulfill the business goals and can be used in decision-making with inventive solutions for a range of situations.

TRAINING
KEY FEATURES

- 144 hours of live instructor-led training

- 3 industry based projects, 6 assignments

- 24/7 support and LMS Access

- Hands on experience with latest tools & applied projects

- Live engagement classes by seasoned academics and professionals

- Internship/Projects

- Flexible timing for working professionals

- EMI option

ELIGIBILITY

Students seeking admission to the course may have to fulfill the following criteria/requirement.

- Bachelor's Degree from a recognized University
- Proficiency in the English language

PREREQUISITES

Due to its involvement in modern Machine Learning algorithms with math and programming, candidate having knowledge with linear algebra, probability and calculus could be a plus.

TOOLS/FRAMEWORKS/ LIBRARIES

- Scripting Tools : Python, MySQL

- Tools /Libraries : SQL, Tableau, Power BI, Informatica, Azure, Qlik Sense, Microsoft SQL Server, SQL DBA, Microsoft Business Intelligence, MS Excel

python	MySQL	SQL	tableau
Power BI	Informatica	Azure	Qlik Sense
Microsoft SQL Server	SQL DBA	Microsoft Business Intelligence	Excel

APPLICATION & USE CASES

Logistics & Delivery

Web Search or Internet Web results

Customer segmentation

Personalised Marketing

Financial trading

Recomm- endations

Search Autocorrect & Autocomplete

CAPSTONE PROJECTS

Showcase your capability with the real-world projects

Bring Your Own Project

Learn to solve a problem that you/your organization is facing using Business Intelligence

OR

Choose From Curated Capstone Projects

PREDICTING SALES OF A SUPERMARKET CHAIN

CLASSIFICATION OF LOAN APPLICATIONS

MARKETING CAMPAIGN INSIGHTS ANALYSIS

INTERNSHIP/PROJECTS

Exeed ECX provides internships in the respective field for a period of 4-5 months to all eligible and able students.

INTERNSHIP/PROJECTS INCLUDES:

- Mentoring by software developers
- Live workshops on projects
- Internship certificate
- Candidate's evaluation

After successfully completing the learning modules, eligible students would move on to internships

PLACEMENT SUPPORT

Exeed ECX's high level of instruction has attracted an increasing number of companies, and the placement scene is expanding. Candidates who excel in internship will be eligible for placement at top MNC's that work with Exeed ECX.

- Deliver five proof-of- concept a month
- We will have our partner companies review the POCs
- JD based Support training
- Placement in MNC

CERTIFICATION

International Certification by

UCAM - Spain

UCAM
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EXEED ecx
YOUR GLOBAL VARSITY

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COLLEGE

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