WHY CHOOSE BDMA

- A two-year course in BI & BD fully delivered in English, given by world-renowned European institutions who jointly designed the courses and programme, including three choices of specialisation,
- The first curriculum in Europe covering the broad scope of scientific and technological fields supporting today and tomorrow’s BI and BD needs,
- Strong connections with research and industry, through cooperation with industrial partners, research institutes, regional public authorities, universities around the world, and a European university network

SCHOLARSHIP

The Erasmus+ programme provides EU-funded scholarships to students who have been selected by the consortium. Students from Programme Countries (ie. EU, Iceland, Liechtenstein, Norway, Turkey, and Former Yugoslav Republic of Macedonia, Serbia): €24,000 per year. Students from Partner Countries: €4,500 per year.

**Note:** Erasmus+ enable students to gain access to loans on favourable conditions, that are up to € 18,000 for two years.

TUITION FEES

Students from Programme Countries: €4,500 per year
Students from Partner Countries: €9,000 per year

APPLICATION DEADLINES

Students applying for an Erasmus+ scholarship:
December, 15th 2019

Students not applying for an Erasmus+ scholarship:
April 30th, 2020 (Partner countries students)
May 30th, 2020 (Programme countries students)

ADMISSION CRITERIA

To apply to BDMA, candidates must meet the following eligibility criteria: They have been awarded a Bachelor’s degree (i.e., the equivalent of 180 ECTS) with a major in computer science, from an accredited university. They must be able to demonstrate proficiency in English by means of an internationally recognised test equivalent to level B2 in the CEFR.

DEGREE AWARDED

Upon completion of the programme, graduates will be awarded with a multiple degree, the nationally recognised master’s degrees from ULB, UPC and the university of the specialisation.

CONTACT

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Today, public and private organisations in all sectors face an avalanche of digital data on a daily basis. While at first glance this appears to be favourable for our knowledge-based society, in many ways it is a burden. Data is neither information nor knowledge. Instead, data is of great value once it has been refined and analysed, in order to address well-formulaed questions, concerning problems of interest. It is only then through data-driven innovation that the economic and social benefit can be fully realised.

The Erasmus Mundus Joint Master Degree Programme in Big Data Management and Analytics (BDMA) is a unique programme that fully covers all of the data management and analytics aspects of Big Data (BD), built on top of Business Intelligence (BI) foundations, and complemented with horizontal skills. It has been jointly designed and adheres to international studies, being structured to cover all the skills BI and BD specia- lists require.
PRESENTATION

BDMA favours the integration of students into a network of 5 institutions. The curriculum is jointly delivered by:
- Université Libre de Bruxelles (ULB), Belgium
- Universitat Politècnica de Catalunya (UPC), Spain
- Technische Universität Berlin (TUB), Germany
- Technische Universität Eindhoven (TU/e), Netherlands
- CentraleSupélec Paris-Saclay University, France

This consortium will prepare the graduates not only to answer today’s professional challenges by a strong connection with the needs coming from the industry, but also to pursue their studies into doctorate programmes, through strong connections with the researchers’ and innovators’ views.

COURSE STRUCTURE

BDMA is a two-year (4 semesters, 120 ECTS) Master’s programme offered by 5 higher education institutions. The first year is devoted to fundamentals: the first semester at ULB, the second one at UPC. Then, all students participate to the European Business Intelligence & Big Data Summer School.

In the third semester, the programme offers three specialisations at TUB, TU/e and UFRT and students move to the partner of the chosen specialisation. The fourth semester is dedicated to the master’s thesis and can be realised either as a placement in industry, or as an internship in a research laboratory in any full or associated partner.

COURSE CONTENT

**ULB Business Intelligence Fundamentals (ULB, Semeste 1)**
- Data Warehouses
- Business Process Management
- Data Mining
- Advanced Databases
- Database Systems Architecture
- Foreign Language. Humanities: Effective Communication

**Big Data Fundamentals (UPC, Semester 2)**
- Big Data Management Semantic
- Data Management Cloud Computing
- Viability of Business Projects Big Data Seminar
- Humanities: Social and Ethical

**Large-Scale Analytics (TUB, Semester 3)**
- Scalable Data Science
- Management of Heterogeneous Information Management of Data Streams
- Big Data Analytics Project
- Humanities: Interdisciplinary Communication Business

**TU/e Process Analytics (TU/e, Semester 3)**
- Business Information Systems
- Introduction to Process Mining
- Visualisation
- Statistics for Big Data
- Business Process Analytics Seminar
- Humanities: Ethics and Technology

**Decision Support & Data Analytics (CentraleSupélec, Paris-Saclay Semester 3)**
- Machine Learning
- Decision Modeling
- Visual Analytics
- Massive Graph Management & Analytics
- Big Data Research Project
- Business Innovation Management
- French Language and European Culture

MOBILITY SCHEMA