

BLUEPRINT

Master of Information Management

Faculty of Economics and Business



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Blueprint Master of Information Management

This blueprint describes the Master of Science in Information Management (60 ECTS at the Leuven campus) and the Dutch-language equivalent Master in het informatiemanagement (60 ECTS at the Leuven campus).

Part 1: Vision and profile

1A Programme goals

a. Programme objective

The programme offers non-technical information management training with emphasis on efficient and effective application and management of information technology in various business contexts. It will help you develop the skills you need to analyse information needs, design and manage information systems, and tailor an IT strategy that fits in with the overall business strategy. The key focus is on the preliminary design needed to develop and set up an information system based on data and processes.

b. Programme-specific learning outcomes (see appendix)

The programme-specific learning outcomes of the Master of Information Management are included in the appendix. The Dutch and English-language equivalent of the Master's programme share the same objectives.

1B Vision on education

The Faculty of Economics and Business (FEB) offers high-quality degrees that are founded in research in the disciplines of economics and business. All the FEB programmes challenge students to envision a clear professional future, to articulate the professional expectations and aspirations they want to commit to, and to make curriculum choices that will help students to achieve these goals.

The following principles are central in the realisation students' future self:

- Education that is research-focused and research-based;
- Balanced with development, immersion and employability;
- Considerate of students' self-development;
- Responsive to developments in a rapidly globalising society;
- That operates from a framework that combines teaching with learning;
- Has a future-oriented approach which is supported by digital learning;
- within a strong learning network.

The master of information management is aimed at students who wish to specialise in information management after having completed prior education in another field (business economics, computer science and others).

The programme is situated at the interface between business economics and computer science and aims to build a bridge between those two fields to optimise the working of IT in businesses. The pro-

programme is strongly inspired by research: prospering ICT technologies are thoroughly followed and integrated into the programme's various mandatory and elective courses.

In the professional field, there is a great demand for data scientists, enterprise/information architects, business analysts, analytics specialists, etc. The master's in information management meets this need by linking the domains of technical knowledge in information science with management aspects. The programme is also aligned with international frameworks in which the business community is involved. Students acquire a basic knowledge of information management and apply this to concrete (business) cases in, among other things, the master's thesis.

Lecturers work in a research-inspired way and act as coaches for group projects and for the master's thesis. In addition, guest speakers with practical experience present the current developments in the business world.

Students take up an active role in their studies and are responsible for their own learning process. They need to prepare classes to be able to make exercises and applications during the lectures and to truly integrate theory and practice. Various courses also include group projects during which students make that integration independently.

The offered electives consists of both computer science courses and courses that are more oriented towards business economics, which makes it possible for students to tailor the programme to their future self without losing technicity.

1C Contents

The programme Master of Information Management is a specialising programme and is located in the cluster Business Economics. A profiling of all FEB programmes can be found in the appendix.

a) Programme specific content

The programme's key focus is on the application and management of information technology in various business contexts. Students learn to design and optimise business processes, analyse and model information needs and handle large amounts of data in an intelligent way to support business decisions. Training in ICT architecture is combined with learning how to design and manage information systems.

Management of business fields is also covered by devoting attention to efficient and effective application and management of information technology in a business context, as well as establishing an information strategy tailored to an organisation's business strategy, and understanding the business economical aspects of information strategy and ICT architecture. Examples in various business fields, such as marketing or finance, are a recurrent theme throughout the various ICT concepts taught during the courses.

Data science is covered during the mandatory courses as well as during the electives. It gives students a powerful means to use new techniques such as analytics, machine learning and big data to solve business problems and support a digital strategy.

During their master's thesis, students enhance their research knowledge and research skills together with their knowledge of a given field in a concrete business context.

b) Transversal learning pathways

In addition to the domain-specific curriculum, this programme also includes **transversal learning pathways** (which can be found in all programmes at FEB and have a strong focus on transferable skills that reinforce the domain knowledge). It concerns the learning pathways of 'professional skills and employability', 'international orientation', 'research and information skills', and 'ethics, responsibility and sustainability'.

The Faculty of Economics and Business wants to support its students in developing the competences needed on the labour market by defining a transversal learning pathway of 'professional skills and employability'. Based on their own strengths and work points, students develop **professional skills** that enable them to make a meaningful contribution to society. The student will develop a professional attitude, including skills related to problem solving, cooperation, communication, personal development and adaptability as well as leadership skills and academic skills. Furthermore, students are encouraged to actively seek out situations to broaden and deepen their competences in accordance with their disciplinary future selves. The student acknowledges the importance of continuous education and demonstrates a willingness for **lifelong learning**. With these skills and the willingness to engage in lifelong learning, the student is optimally prepared for the labour market.

The Faculty of Economics and Business aims to equip its students with the skills, knowledge and attitudes required to function in an increasingly diverse and complex labour market that demands intercultural skills and an international outlook from its graduates. The learning pathway of **international orientation** aims to train students in global competences, i.e. the ability to examine local, global and intercultural issues, to understand and appreciate the perspectives and worldviews of others, to interact openly, appropriately and effectively with people from different cultures, and to act for the common good and sustainable development.

The Faculty of Economics and Business Administration strives to familiarize its students with the various phases and methods of scientific research. This goal is achieved in the learning pathway of research and information skills. **Information skills** are defined as all skills related to searching, evaluating, selecting, managing and processing scientifically relevant information (including the correct referencing of sources), with the aid of ICT technologies. By **research skills**, we mean all skills that are important for conducting high-quality and scientifically sound quantitative and/or qualitative research. Students learn to make a reasoned decision on which research method to use to solve a relevant (practical) management or (business) economic problem. They gradually learn - with a sufficient degree of autonomy and in constructive dialogue with their supervisors - to acquire, analyse and interpret data in a correct manner, and thereby remaining a critical attitude towards the research results.

In all programmes of the Faculty of Economics and Business, attention is given to "Ethics, responsibility and sustainability" as it offers a critical perspective to explore and deepen (business) economic themes with respect to the environment, people and society. Every programme contains courses related to ethics and philosophy (of life) and/or contains courses that link elements of ethics, responsibility and sustainability to business domain(s). In doing so, the faculty strives for students to develop into engaged and responsible citizens who recognise the complexity of the economic, social, political and environmental contexts in which they will work as entrepreneurs, managers, consultants, researchers, policy-makers or decision-makers.

1E Incoming student profile

Students are expected to have a basic knowledge of computer science and/or economics and to be interested in their applications in a business context, such as e-business, digitalisation, data science, big data, ICT architecture and ICT strategies. Students with prior academic education can enrol directly, students with prior professional education in the fields of business and business administration or computer science can enroll for the bridging programme.

1F Graduate profile and career prospects

Business informaticians who analyse and manage information, knowledge, processes and systems in line with business strategy are an important link between business and computer science. Graduates are employed in varied contexts, both national and international, profit and non-profit, private and governmental. In all those contexts, soft skills (communication skills, teamwork and group management) are of paramount importance.

Alumni can for example pursue careers as enterprise architect, functional analyst, ICT project manager, information analyst, consultant, data scientist and information technology strategist. The Young Alumni Survey showed that graduates quickly find a job and become employed in a wide array of sectors such as telecoms, ICT and internet, radio and television, banking, finances and insurances, consultancies, governments, the machine, metal, car and wood industry...

Part 2: Realisation of vision and goals

2A Programme structure

The programme consists of one study period of 60 credits. The core consist of 36 credits of mandatory courses in information system management, of which 12 ECTS only have to be taken by students with insufficient prior knowledge of business informatics. The mandatory courses guarantee a thorough knowledge of the core concepts of information management.

The master's thesis takes up 15 credits. Students develop an information management case from an academic and business point of view. Usually, that happens in cooperation with a business partner, but research cases and personal suggestions are also possible.

Elective courses (data science, software engineering, management) complete the programme. Electives allow students to further deepen their expertise in information management or to broaden their knowledge of computer science and business economics. They also enable students to prepare for specific job perspectives.

2B Didactic course formats and assessment methods

2B.1 Didactic course formats and learning activities

The master's in information management primarily uses lectures and response lectures, both face-to-face and online. The programme accommodates a wide range of course formats and learning activities (including lectures, case studies, group work, papers, projects, seminars, working lectures), tailored to the profile of the programme and aligned with the learning objectives, the characteristics of the student group and the learning process envisioned by the instructor.

The focus of the Master of Information Management programme is on developing critical thinking, analytical and methodological skills. Students are encouraged to be increasingly responsible actors in their own learning process. The purposeful, cohesive combination of different course formats provides students with the opportunity to develop appropriate learning behaviors, thus acquiring the learning outcomes.

The blend of contact moments and distance learning supported by innovative educational technology means that presence on campus is necessary to participate in the learning activities and acquire the full objectives of the course unit and programme.

2B.2 Assessment methods

Teachers use a (combination of) evaluation forms that help achieve the intended learning outcomes in the best possible way (formative evaluation) or that help assess them (summative evaluation). In doing so, they pay attention to the transparency, validity and reliability of the evaluation.

Formative evaluation generates feedback for both student and teacher about where the student stands regarding the learning objectives. This allows students to adjust their learning activities and behaviour, and the instructor can also adjust his/her didactic approach where necessary. This continually optimises the learning process. In the programme, formative evaluation is dealt with by means of a show of hands or quiz during the lectures, assignments where work is done by means of peer feedback/evaluation, making sample exam questions available with solution keys, etc.

Summative evaluation assesses whether the learning objectives have been achieved by the student. Most course units within this programme are evaluated by a written examination during the examination period with open or multiple choice questions, whether or not combined with some form of continuous evaluation (paper, group assignment, class collaboration).

Transparency about the assessment is obtained by adequately informing the students about the (parts of the) evaluation through the ECTS, Toledo and by explanations of the teacher.

To ensure the **validity** of assessment, FEB encourages the use of test matrices, making the alignment between the evaluation and the learning outcomes explicit. Considering the diversity of learning outcomes, both in content domains and in knowledge, skills and attitudes, a suitable diversity of evaluation forms is aimed for.

Evaluation **reliability** is guaranteed by careful assessment of the evaluations, provided with appropriate support tools such as correction keys, rubrics and evaluation forms.

2B.3 Quality assurance at programme level

The POC, chaired by the programme director, and consisting of lecturers, teaching assistants, student representatives, staff members and study career counsellors, monitors the programme's educational quality. The POC does this by implementing a systematic policy within the programme by means of this blueprint and the programme plan, and in line with faculty and university policy. To monitor quality, the POC uses various surveys and instruments. Additionally, student representatives are present at each POC, giving voice to the concerns of students in the various topics. Based on the input of its members and systematic reflection, the POC makes adjustments where necessary to the curriculum, courses and their didactic formats as well as the evaluation, or the synchronisation between various

elements. When necessary, the POC scales up themes to the faculty level for further follow-up or support.

The Faculty of Economics and Business uses a version of the university-wide quality assurance system COBRA for internal quality assurance, and also participates in the external quality review EQUIS.

The faculty also focuses on quality by developing a supportive offer for lecturers and didactic teams, such as organising onboarding trajectories for new lecturers, lunch seminars on education, educational seminars for starting teaching assistants, and by supporting lecturers in obtaining their basic teaching qualification.

2C guidance

In addition to the course-related support provided by **teachers and assistants** during the learning activities, the university's student services also have an extensive support offer in place.

Study career counsellors help students reflect on who they are, where they are and where they want to go. They support students in outlining their optimal study career. They also help students to consider various possibilities in case of doubts about their study choice and/or at pivotal moments in their study career.

Students can also call on the **university-wide services of KU Leuven Stuvo**.

The faculty considers teaching and learning to be a partnership between lecturers and students. Therefore, a large part of the (final) responsibility for a study career is placed on the student himself, and students are also called to account for this by the student services. The student himself determines to what extent he makes use of the guidance services offered. The faculty, for its part, will inform students of its efforts in this respect and strongly recommends the initiatives taken.

Appendix 1: Learning outcomes of the programme

Management of business domains

Can analyse the business aspects of an information strategy and ICT architecture.

Design of business processes

Can analyse the information needs of a company and uses information technology to support and optimize the operations and (strategic) goals of an organization.

Is able to model, analyse and optimize business processes through a thorough understanding of business process management and process mining.

ICT skills and information management

Can analyse, optimise and automate business processes using ICT strategies and techniques.

Develops specific professional skills to integrate, visualize and analyse business data for data-driven and big data operations.

Research skills

Can go through different phases of research to analyse information management problems, formulate and evaluate solutions, and communicate about them.

Languages

Communicates professionally and scientifically correct, fluently and clearly in writing and orally in the language of instruction about business problems and their solutions.

Professional skills and employability

Develops professional skills in preparation for the transition to the labour market (leadership skills, teamwork, communication skills...).

Ethics, responsibility and sustainability

Recognises the social, ethical and environmental aspects of business operations and can reflect critically on them.

International orientation

Can analyse information management issues in an international context.

Entrepreneurship and innovation

Has the necessary knowledge, skills and attitudes to develop innovative ideas in a business economic context.

Appendix 2: Spearheads of the Faculty-wide framework of Intended Learning Outcomes

The Faculty of Economics and Business offers different programmes at four campuses (Leuven, Brussels, Antwerp and Kortrijk). To illustrate the differences and similarities between these programmes, a Faculty-wide framework of Intended Learning Outcomes (ILOs) has been developed. The ILO framework identifies fifteen spearheads that are to a greater or lesser extent present in each programme. The visualisation below shows for each programme how much emphasis is put on each of the key features. As such, it demonstrates where the programmes differ from one another, but also shows the characteristics that are shared by all programmes (with regard to the professional and personal development of students).

