



# Master in Business engineering

The 2024-2025 programme is subject to change. It is provided for information purposes only.

## Programme mnemonic

MA-INGE

> Focus *Professional* : M-INGEF

## Studies level

Master 120 credits

## Learning language

english and french

## Schedule

office hours

## Studies category / subcategory

Economics and business management / Business management

## Campus

Solbosch

## Programme's added value

What the Solvay Brussels School has to offer

- > A location at the **heart of Europe**, within a comprehensive research university: the Université libre de Bruxelles.
- > An **international faculty** with a staff of high-level researchers and accomplished practitioners, who work together to ensure that the training they provide is both relevant for business and policy practice and corresponds to the state of art.
- > A **tradition of rigorous** and demanding curricula based on solid multidisciplinary and analytical training, promoting critical thinking and problem-solving skills.
- > A **diversity of teaching methods** that are constantly revised to ensure teaching effectiveness.
- > A **diverse and international** student body (up to 80% in some Master programmes).
- > A offering covering economics and business from the bachelor to in-company training.
- > **Accreditation from EQUIS** (European Foundation for Management Development) and AMBA (Association of Masters of Business Administration). AACSB (Association to Advance Collegiate Schools of Business) accreditation is underway.

Career services

SBS-EM offers its students a number of resources for career development:

- > Credited work placements [<http://www.solvay.edu/credited-internship-programme>] (full-time, 3-month minimum – 6-month maximum ) allow participating students to gain work experience, apply their academic training, and develop their professional network before graduation.
- > Career services [<http://www.solvay.edu/career-services>] provide practical guidance and preparation for the job market (workshops, writing a CV and a cover letter, simulated interviews, LinkedIn profile management, etc.) and organise events (lectures and seminars) with prominent business figures, presenting companies and their employment opportunities. Over the years, the SBS-EM has developed a wide network of recruiters and alumni and has established contacts with companies throughout Belgium and around the world.

## Programme objectives

This very intensive and demanding programme, prepares future executives, leaders, and entrepreneurs who can work in any type of industry and organisation—for-profit, non-profit, or public. Students in this programme develop the ability to understand and engage in all areas of business administration. A business engineer is able to integrate all main functions and departments of an organisation and to arbitrate between them. Students develop their knowledge and know-how in all fields of management (strategy, finance, marketing, human resources and leadership, operations and supply-chain, innovation, information systems, and digital business), while also learning key skills involved in defining a strategy, enacting changes, or creating a business: information analysis, problem solving, project leadership, personnel management, communication, ethics in business, critical thinking, entrepreneurial drive, team work, and self-management.

- › From their graduation onwards, students benefit from a strong and active alumni network [<http://www.solvay.edu/alumni>] with 23,000 members in 100 countries.

#### Study-abroad programmes

The Master in Business Engineering offers several opportunities to study abroad:

- › The international exchange programme [<http://www.solvay.edu/outgoing-students>] , with more than 130 partner universities in 40 countries
- › The double degree [<http://www.solvay.edu/credited-internship-programme>] specialised in Operations Management, with the Politecnico di Milano
- › The Master with the QTEM network [<https://www.qtem.org/>]

## Teaching methods

SBS-EM programmes emphasise the acquisition of both analytical and problem-solving skills. They combine conceptual courses—where students learn techniques and their theoretical underpinnings—with practical workshops and individual and team-based projects—where students can test their understanding of the theory and develop their ability to apply it creatively to real problems. Critical, creative, and independent thinking is required.

SBS-EM leverages its wide-ranging international exchange programmes to offer students training opportunities abroad during their studies. This Master also gives students the possibility to include a credited work placement in their curriculum.

## Succeed in your studies

### Choose

The information and guidance counsellors at the InfOR-études [<https://www.ulb.be/en/studies-info-desk-1>] service will help you choose your studies throughout the year.

### Succeed

Take part in preparatory courses [<https://www.ulb.be/en/studies-info-desk-1>] or get help to succeed [<https://www.ulb.be/en/studies-info-desk-1>] , before or during your studies.

### Get help

Apply for financial aid, look for accommodation or a student job, get support [<https://www.ulb.be/fr/aides-services-et-accompagnement/aid-services-and-support-1>] for your specific needs.

## International/Openness

SBS-EM prepares its graduates for careers in multicultural and international environments. The curriculum includes language courses, which enable students to work in multilingual environments. Most courses cover the international dimensions of policy and management decision-making. Lastly, students can avail themselves of a rich offering of study-abroad and joint degree programmes. These international experiences offer them an opportunity to enrich their curriculum and broaden their horizons, and are an essential element of professional life in a globalised world.

### International Exchange Programme

Students may spend one semester abroad in one of our 130 partner universities. For more information, visit [www.solvay.edu/outgoing-students](http://www.solvay.edu/outgoing-students).

### Double Degree with the Politecnico di Milano, specialised in Operations Management

The Master in Business Engineering offers a double degree (1st year at ULB, 2nd year at the partner institution) with the Politecnico di Milano [<https://www.polimi.it/en/>] , Italy. This programme includes a credited work placement. For more information, visit [www.solvay.edu/double-degrees](http://www.solvay.edu/double-degrees).

### The QTEM networked master

Qualified students in the Master in Business Engineering can enrol in the Quantitative Techniques for Economics and Management (QTEM) Master programme. The QTEM master gives participants enhanced training in quantitative and analytical skills and two international experiences (two exchange periods or one exchange period and one long-term work placement). The QTEM network currently includes 23 partners. For more information, visit [www.qtem.org](http://www.qtem.org).

## Job opportunities

The comprehensive and multivalent nature of our programme lets graduates access a wide range of careers, from consulting and auditing to executive positions. Essentially, ULB's business engineers are ready to carry out any mission fostering collaborative work and innovation, which means jobs that require management and decision making skills:

- › Executive positions in any type of organisation (public, private, or NGO) and industry
- › Management, strategy, and IT consulting
- › Entrepreneurship
- › Auditing or management control
- › Financial analysis and mergers and acquisitions (M&A)
- › Brand management

Notable alumni include:

- › Hadi Kamouh , Group Chief Marketing Officer, Banque Degroof Petercam
- › Dominique Leroy, Chief Executive Officer, Proximus
- › Jean-Michel Paul, Founder & CEO, Acheron capital Ltd.
- › Nicolas Steisel, Co-founder, Exki
- › Jean Van Wetter, Chief Executive Officer, Handicap International Belgique

### Contacts

 [masters.solvay@ulb.be](mailto:masters.solvay@ulb.be)

 +32 2 650 41 74

 <http://www.solvay.edu/bachelors-masters>

### Jury President

Hugues PIROTTE

### Jury Secretary

Olivier WITMEUR



# Master in Business engineering

## Focus Professional

The programme integrates key differentiating courses reinforcing the links between the two disciplines of business development and engineering, to shape the business engineers of tomorrow.

The programme consists in :

- 1 A strong core of compulsory courses in the main disciplines of management (45 ECTS).
- 2 An international experience through either (i) an international exchange in the very rich list of other universities, or (ii) and international traineeship (25 ECTS).
- 3 Two applied seminars, representing practical experience : a field project and a strategy seminar (10 ECTS).
- 4 Two elective course pairs to be freely chosen among a rich catalog of course pairs, each one focusing on a particular metier (20 ECTS).
- 5 A final master's thesis, integrating a development course (20 ECTS).

### Bloc 1 | M-INGEF | MA-INGE

## Mandatory Courses

GEST-S403	<b>Advanced Marketing (Chaire InBev-Baillet Latour)</b>   Sandra ROTHENBERGER (Coordinator) ⌚ 5 credits [lecture: 36h] 📅 first term 🗨 English
GEST-S406	<b>Advanced Strategy</b>   Timo Ehrig (Coordinator) and François FAELLI ⌚ 5 credits [lecture: 36h] 📅 second term 🗨 English
GEST-S407	<b>Operations management</b>   Evelyne VANPOUCKE (Coordinator) ⌚ 5 credits [lecture: 24h, practical work: 12h, project: 12h] 📅 first term 🗨 English
GEST-S408	<b>Advanced Finance</b>   Hugues PIROTTE (Coordinator) ⌚ 5 credits [lecture: 36h, tutorial classes: 24h] 📅 first term 🗨 English
GEST-S409	<b>Advanced accounting</b>   Pierre-Hugues BONNEFOY CUDRAZ (Coordinator) and Jean-Paul LOOZEN ⌚ 5 credits [lecture: 36h, tutorial classes: 24h] 📅 first term 🗨 English
GEST-S414	<b>Banking and asset management</b>   Griselda DEELSTRA (Coordinator) and Mathias SCHMIT ⌚ 5 credits [lecture: 36h] 📅 first term 🗨 English
GEST-S482	<b>The digital firm</b>   Nicolas VAN ZEEBROECK (Coordinator) and Vincent LION ⌚ 5 credits [lecture: 36h, tutorial classes: 24h] 📅 first term 🗨 English
GEST-S566	<b>Advanced entrepreneurship</b>   Olivier WITMEUR (Coordinator), Benjamin BEECKMANS and Bruno WATTENBERGH ⌚ 5 credits [lecture: 24h] 📅 second term 🗨 English

## Competences

Take 20 credits by choosing freely 2 pairs of courses, among the following competences\*

\*When a proposed pair contains 3 courses, please choose only 2

- 1 Finance, Accounting and Control (FAC)
- 2 Entrepreneurship, Strategy and Governance (ESG)
- 3 Technology and Operations Management (TOM)
- 4 Marketing (MKTG)

A total of 20 credits chosen from the following

## FAC - Module 1

Choose 2 out of 3

*Two courses chosen from the following*

- GEST-S400 (optional) **Market and Corporate Accounting** | BRUNO COLMANT (Coordinator)  
⌚ 5 credits [lecture: 36h] 📅 second term 🗨 English
- GEST-S446 (optional) **Comptabilité des coûts** | OLIVIER CHRISTOPHE (Coordinator) and Katty IMBERECHTS  
⌚ 5 credits [lecture: 24h, tutorial classes: 24h] 📅 second term 🗨 French
- GEST-S485 (optional) **Advanced management control** | Fouad ELOUCH (Coordinator)  
⌚ 5 credits [lecture: 24h] 📅 second term 🗨 English

## FAC - Module 2

Choose 2 out of 3

*Two courses chosen from the following*

- GEST-S466 (optional) **La criminalité financière dans le monde de l'entreprise** | Pierre-Hugues BONNEFOY CUDRAZ (Coordinator)  
⌚ 5 credits [lecture: 24h] 📅 second term 🗨 French
- GEST-S486 (optional) **Enterprise-wide and sustainability-wise risk management** | Pierre Poncelet (Coordinator)  
⌚ 5 credits [lecture: 24h] 📅 second term 🗨 English
- GEST-S501 (optional) **Audit** | Romuald BILEM (Coordinator)  
⌚ 5 credits [lecture: 24h] 📅 second term 🗨 French

## FAC - Module 3

GEST-S428 (optional)

**Corporate governance and Stewardship (Chaire Léo Goldschmidt)** | Marco BECHT (Coordinator)  
⌚ 5 credits [lecture: 24h] 📅 second term 🗨 English

GEST-S506 (optional)

**Capital markets & investment banking** | CHRISTIAN DE HAAIJ (Coordinator)  
⌚ 5 credits [lecture: 48h] 📅 second term 🗨 English

## FAC - Module 4

Choose 2 out of 3

*Two courses chosen from the following*

- GEST-S497 (optional) **Modélisation mathématique en finance** | Carolina Laureti (Coordinator)  
⌚ 5 credits [lecture: 24h] 📅 second term 🗨 French
- GEST-S503 (optional) **Financial econometrics** | Olivier SCAILLET (Coordinator)  
⌚ 5 credits [lecture: 24h, tutorial classes: 12h] 📅 second term 🗨 English
- GEST-S531 (optional) **Financial history** | Kim OOSTERLINCK (Coordinator)  
⌚ 5 credits [lecture: 24h] 📅 second term 🗨 English

## FAC - Module 5

GEST-S569 (optional)

**Derivatives, Financial risk management & Governance** | Hugues PIROTTE (Coordinator) and Frédéric VAN DER SCHUEREN  
⌚ 10 credits [lecture: 54h, tutorial classes: 24h] 📅 second term 🗨 English

## FAC - Module 6

GEST-S4007 (optional)

**Impact Investing** | Céline VAESSEN (Coordinator) and BRUNO FARBER  
⌚ 5 credits [lecture: 24h] 📅 second term 🗨 English



GEST-S499 (optional) **Promotion & Investissement Immobiliers: Principes fondamentaux** | Gaëtan PIRET (Coordinator)  
 5 credits [lecture: 36h] second term French

ESG - Module 1

GEST-S484 (optional) **Innovation strategy** | Manuel HENSMANS (Coordinator)  
 5 credits [lecture: 36h] second term English

GEST-S492 (optional) **Energy policy, sustainability & management** | Adel EL Gammal (Coordinator), Julien BLONDEAU and Michel HUART  
 5 credits [lecture: 36h, seminars: 24h] first term English

GEST-S516 (optional) **Seminar of emerging technologies** | Marc BECQUET (Coordinator)  
 5 credits [seminars: 24h] second term English

ESG - Module 2

GEST-S493 (optional) **The CEO Perspective** | Pierre GURDJIAN (Coordinator)  
 5 credits [lecture: 48h] second term English

GEST-S494 (optional) **Managing errors in organisations (Chaire InBev Baillet Latour)** | Paul VERDIN (Coordinator)  
 5 credits [lecture: 48h] second term English

GEST-S498 (optional) **Negotiation Skills** | Claudia TOMA (Coordinator) and Avi Goldstein  
 5 credits [lecture: 24h, seminars: 12h] first term English

50 étudiants maximum pour ce cours.

ESG - Module 3

GEST-S471 (optional) **Management and sustainable development : constraints and opportunities** | Eric MONAMI (Coordinator)  
 5 credits [lecture: 36h, seminars: 36h] second term English

GEST-S492 (optional) **Energy policy, sustainability & management** | Adel EL Gammal (Coordinator), Julien BLONDEAU and Michel HUART  
 5 credits [lecture: 36h, seminars: 24h] first term English

GEST-S496 (optional) **Research Seminar in Business History (Chaire Kurgan-van Hentenryk)** | Julien del Marmol (Coordinator) and Kenneth BERTRAMS  
 5 credits [lecture: 24h] second term English

TOM - Module 1

GEST-S420 (optional) **Advanced Analytics in the Era of Big Data** | Pierre DEVILLE (Coordinator)  
 5 credits [lecture: 36h, tutorial classes: 12h, project: 12h] second term French

STAT-S401 (optional) **Analyse statistique multivariée** | Catherine DEHON (Coordinator)  
 5 credits [lecture: 24h, tutorial classes: 12h] second term French

TOM - Module 2

Choose 2 out of 3

*Two courses chosen from the following*

GEST-S423 (optional) **IP Management and Technology Transfer (Chaire Solvay)** | Bruno VAN POTTELSBERGHE (Coordinator)  
 5 credits [lecture: 24h, tutorial classes: 12h] second term English

GEST-S450 (optional) **Project management** | FREDERIC HOFFMANN (Coordinator)  
 5 credits [lecture: 24h] second term English/French

MECA-H409 (optional) **Design methodology** | Alain DELCHAMBRE (Coordinator)  
 5 credits [lecture: 24h, tutorial classes: 24h, personal assignments: 12h] first term English

MKTG - Module 1

Choose 2 out of 3



*Two courses chosen from the following*

GEST-S440 (optional) **Applied marketing analytics** | Sandra ROTHENBERGER (Coordinator) and Philippe MAUCHARD  
⌚ 5 credits [lecture: 48h] 📅 second term 🗨 English

GEST-S441 (optional) **Global marketing** | Virginie BRUNEAU (Coordinator)  
⌚ 5 credits [lecture: 24h] 📅 second term 🗨 English

GEST-S442 (optional) **Value-based pricing** | Sandra ROTHENBERGER (Coordinator)  
⌚ 5 credits [lecture: 24h] 📅 second term 🗨 English

**MKTG - Module 2**

GEST-S491 (optional) **Omnichannel & customer relationship strategies** | Virginie BRUNEAU (Coordinator)  
⌚ 5 credits [lecture: 24h] 📅 second term 🗨 English

GEST-S508 (optional) **Integrated communication - Communication intégrée : concepts et travaux pratiques** | Philippe BILTIAU (Coordinator) and HUGUES REY  
⌚ 5 credits [lecture: 24h] 📅 second term 🗨 English

# Master in Business engineering

## Focus Professional

### Bloc 2 | M-INGEF | MA-INGE

## Mandatory courses

MEMO-S505 **Master-Thesis/Mémoire** | Olivier WITMEUR (Coordinator)  
 20 credits [mfe/tfe: 360h] first and second terms English/French

### International Internship or Exchange programme

HULB-S500 : Coordinatrice Tamara Schuller

STAG-S500 : Coordinatrice Pascaline Flon.

#### One course chosen from the following

HULB-S500 (optional) **Exchange programme**  
 25 credits first and second terms English

STAG-S500 (optional) **Credited internship with a critical mindset** | Jean-Nicolas Lambert (Coordinator), Xavier CLABOTS, Brigitte Marchand and Claudio Truzzi  
 25 credits [work placement: 600h] first term English/French

### Courses depending on the timing of your Exchange/Internship

#### One course chosen from the following

GEST-S4005 (optional) **Comportement organisationnel, leadership et éthique des affaires** | Michel VERSTRAETEN (Coordinator), Marek HUDON and Coline Serres  
 5 credits [lecture: 24h, tutorial classes: 24h] first term French

GEST-S488 (optional) **Comportement organisationnel, leadership et éthique des affaires** | Michel VERSTRAETEN (Coordinator), Laurence BOOGAERTS and Marek HUDON  
 5 credits [lecture: 24h, tutorial classes: 24h] second term French

## Seminar and Field project

### Seminar

You will be assigned to one of the following seminars

#### One course chosen from the following

GEST-S500 (optional) **Seminar of Business Strategy** | STEFAN DAB (Coordinator)  
 5 credits [seminars: 12h] first term English

GEST-S524 (optional) **Seminar of Business Strategy** | Karim CHOUIKRI (Coordinator)  
 5 credits [seminars: 12h] second term French

GEST-S525 (optional) **Seminar of Business Strategy** | STEFAN DESCHEEMAEKER (Coordinator)  
 5 credits [seminars: 12h] second term English



- GEST-S548 (optional) **Seminar of Business Strategy**  
⌚ 5 credits [seminars: 12h] 📅 second term 🗨 English
- GEST-S549 (optional) **Seminar of Business Strategy** | Fabian SEUNIER (Coordinator)  
⌚ 5 credits [seminars: 12h] 📅 first term 🗨 English
- GEST-S577 (optional) **Seminar of Business Strategy** | CHRISTOPHE EVERS (Coordinator) and Hugues PIROTTE  
⌚ 5 credits [seminars: 12h] 📅 second term 🗨 French
- GEST-S578 (optional) **Seminar of Business Strategy** | OLIVIER GILLEROT (Coordinator) and Nicolas Bloch  
⌚ 5 credits [seminars: 12h] 📅 second term 🗨 English

## Field Project

*One course chosen from the following*

- GEST-S522 (optional) **Field project: Finance** | STEFAN DAB (Coordinator)  
⌚ 5 credits [seminars: 12h] 📅 academic year 🗨 English
- GEST-S523 (optional) **Field project: Marketing**  
⌚ 5 credits [seminars: 12h] 📅 academic year 🗨 English/French
- GEST-S527 (optional) **Field project: Organisation** | Denis HERBAUX (Coordinator)  
⌚ 5 credits [seminars: 12h] 📅 academic year 🗨 English/French
- GEST-S528 (optional) **Field project: Healthcare** | Philippe VAN WILDER (Coordinator)  
⌚ 5 credits [seminars: 12h] 📅 academic year 🗨 English/French
- GEST-S529 (optional) **Field project: Human Resources** | Lucy VAN HOVE (Coordinator)  
⌚ 5 credits [seminars: 12h] 📅 academic year 🗨 English
- GEST-S530 (optional) **Field project: IT governance** | Georges ATAYA (Coordinator)  
⌚ 5 credits [seminars: 12h] 📅 academic year 🗨 English/French
- GEST-S538 (optional) **Field project** | Hugues PIROTTE (Coordinator) and Olivier WITMEUR  
⌚ 5 credits [seminars: 12h] 📅 first and second terms
- GEST-S562 (optional) **Field project: Finance**  
⌚ 5 credits [seminars: 12h] 📅 academic year 🗨 English
- GEST-S563 (optional) **Field project: Non profit** | Nicolas JANSSEN (Coordinator)  
⌚ 5 credits [seminars: 12h] 📅 academic year 🗨 English/French

## QTEM student specific course

GEST-S510 - Global Business analytics Challenge - 8 crédits - M. Michele Cincera et M. Antonio Pacifico