Master in Business engineering

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 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.

Programme’s added value
What the Solvay Brussels School has to offer

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.

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

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

ULB offers a number of activities and resources that can help you develop a successful strategy before or during your studies. You can make the transition to higher education easier by attending preparatory courses, summer classes, and information and orientation sessions, even before you start your studies at ULB.

During your studies, many people at ULB are there specifically to help you succeed: support staff in each faculty, (inter-)faculty guidance counsellors, tutors, and experts in academic methodology.

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.

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.

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.

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.ac.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:

Block 1 | M-INGEF | MA-INGE

### Mandatory Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Coordinator(s)</th>
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</thead>
<tbody>
<tr>
<td>GEST-S403</td>
<td>Advanced Marketing (Chaire InBev-Baillet Latour)</td>
<td>Sandra ROTHENBERGER</td>
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<td>(Coordinator)</td>
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<tr>
<td>GEST-S406</td>
<td>Strategy</td>
<td>François FAELLI (Coordinator) and Giorgio Zanarone</td>
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<tr>
<td>GEST-S407</td>
<td>Operations management</td>
<td>Evelyne VANPOUCKE (Coordinator)</td>
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<tr>
<td>GEST-S408</td>
<td>Corporate valuation and financing</td>
<td>Hugues PIROTTE (Coordinator)</td>
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<tr>
<td>GEST-S409</td>
<td>Advanced accounting</td>
<td>Pierre-Hugues BONNEFOY CUDRAZ (Coordinator) and Jean-Paul LOOZEN</td>
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<tr>
<td>GEST-S414</td>
<td>Banking and asset management</td>
<td>Mathias SCHMIT (Coordinator) and Griselda DEELSTRA</td>
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<tr>
<td>GEST-S482</td>
<td>The digital firm</td>
<td>Nicolas VAN ZEEBROECK (Coordinator)</td>
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<tr>
<td>GEST-S566</td>
<td>Advanced entrepreneurship</td>
<td>Olivier WITMEUR (Coordinator), Benjamin BEECKMANS and Bruno WATTENBERGH</td>
</tr>
</tbody>
</table>

### 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
[[ol]]

A total of 20 credits chosen from the following

FAC - Module 1

Choose 2 out of 3

Two courses chosen from the following

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Coordinator(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEST-S400</td>
<td>Market and Corporate Accounting</td>
<td>BRUNO COLMANT (Coordinator)</td>
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<tr>
<td>GEST-S446</td>
<td>Comptabilité des coûts</td>
<td>OLIVIER CHRISTOPHE (Coordinator) and Katty IMBERECHTS</td>
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</table>
FAC - Module 2

Choose 2 out of 3

Two courses chosen from the following

- **GEST-S486**  
  **Topics in corporate risk management, control and governance**  
  Christophe QUIEVREUX (Coordinator)  
  5 credits  
  second term  
  English

- **GEST-S499**  
  **Real Estate finance and development**  
  Gaëtan PIRET (Coordinator)  
  5 credits  
  second term  
  English

- **GEST-S501**  
  **Audit**  
  Romuald BILEM (Coordinator)  
  5 credits  
  second term  
  French

FAC - Module 3

- **GEST-S428**  
  **Corporate governance and Stewardship (Chaire Léo Goldschmidt)**  
  Marco BECHT (Coordinator)  
  5 credits  
  second term  
  English

- **GEST-S506**  
  **Capital markets & investment banking**  
  CHRISTIAN DE HAAIJ (Coordinator)  
  5 credits  
  second term  
  English

FAC - Module 4

Choose 2 out of 3

Two courses chosen from the following

- **GEST-S497**  
  **Modélisation mathématique en finance**  
  Ariane SZAFAZ (Coordinator) and Carolina Laureti  
  5 credits  
  second term  
  French

- **GEST-S503**  
  **Financial econometrics**  
  Olivier SCAILLET (Coordinator)  
  5 credits  
  second term  
  English

- **GEST-S5531**  
  **Financial history**  
  Kim OOSTERLINCK (Coordinator)  
  5 credits  
  second term  
  English

FAC - Module 5

- **GEST-S569**  
  **Derivatives, Financial risk management & Governance**  
  Hugues PIROTTE (Coordinator) and Frédéric VAN DER SCHUEREN  
  10 credits  
  second term  
  English

ESG - Module 1

- **GEST-S484**  
  **Innovation strategy**  
  Manuel HENSMANS (Coordinator)  
  5 credits  
  second term  
  English

- **GEST-S516**  
  **Seminar of emerging technologies**  
  Marc BECQUET (Coordinator)  
  5 credits  
  second term  
  English

ESG - Module 2

- **GEST-S493**  
  **The CEO Perspective**  
  Pierre GURDJIAN (Coordinator)  
  5 credits  
  second term  
  English

- **GEST-S494**  
  **Managing errors in organisations (Chaire InBev Baillet Latour)**  
  Paul VERDIN (Coordinator)  
  5 credits  
  second term  
  English
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Coordinator</th>
<th>Credits</th>
<th>Lecture Hours</th>
<th>Seminar Hours</th>
<th>Term</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEST-S498</td>
<td>Negotiation Skills</td>
<td>Claudia TOMA (Coordinator)</td>
<td>5</td>
<td>24h</td>
<td>12h</td>
<td>First</td>
<td>English</td>
</tr>
<tr>
<td>GEST-S471</td>
<td>Management and sustainable development : constraints and opportunities</td>
<td>Eric MONAMI (Coordinator)</td>
<td>5</td>
<td>36h</td>
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<td>Second</td>
<td>English</td>
</tr>
<tr>
<td>GEST-S496</td>
<td>Research Seminar in Business History (Chaire Kurgan-van Hentenryk)</td>
<td>Julien del Marmol and Kenneth BERTRAMS</td>
<td>5</td>
<td>24h</td>
<td></td>
<td>Second</td>
<td>English</td>
</tr>
<tr>
<td>GEST-S420</td>
<td>Advanced Analytics in the era of Big Data</td>
<td>Pierre DEVILLE (Coordinator)</td>
<td>5</td>
<td>24h</td>
<td></td>
<td>Second</td>
<td>French</td>
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<tr>
<td>GEST-S430</td>
<td>Business intelligence and data science</td>
<td>Thierry VAN DE MERCKT (Coordinator)</td>
<td>5</td>
<td>36h, 12h</td>
<td></td>
<td>Second</td>
<td>English</td>
</tr>
<tr>
<td>GEST-S423</td>
<td>IP Management and Technology Transfer (Chaire Solvay)</td>
<td>Bruno VAN POTTELSBERGHE (Coordinator)</td>
<td>5</td>
<td>24h, 12h</td>
<td></td>
<td>Second</td>
<td>English</td>
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<tr>
<td>GEST-S450</td>
<td>Project management</td>
<td>FREDERIC HOFFMANN (Coordinator)</td>
<td>5</td>
<td>24h</td>
<td></td>
<td>Second</td>
<td>English/French</td>
</tr>
<tr>
<td>MECA-H409</td>
<td>Design methodology</td>
<td>Alain DELCHAMBRE (Coordinator)</td>
<td>5</td>
<td>24h, 12h, 12h</td>
<td></td>
<td>First</td>
<td>English</td>
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<tr>
<td>GEST-S440</td>
<td>Applied marketing analytics</td>
<td>Philippe MAUCHARD and Sandra ROTHENBERGER</td>
<td>5</td>
<td>48h</td>
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<td>Second</td>
<td>English</td>
</tr>
<tr>
<td>GEST-S441</td>
<td>Global marketing</td>
<td>Virginie BRUNEAU (Coordinator)</td>
<td>5</td>
<td>24h</td>
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<td>Second</td>
<td>English</td>
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<tr>
<td>GEST-S442</td>
<td>Value-based pricing</td>
<td>Sandra ROTHENBERGER (Coordinator)</td>
<td>5</td>
<td>24h</td>
<td></td>
<td>Second</td>
<td>English</td>
</tr>
<tr>
<td>GEST-S491</td>
<td>Omnichannel &amp; customer relationship strategies</td>
<td>Virginie BRUNEAU (Coordinator)</td>
<td>5</td>
<td>24h</td>
<td></td>
<td>Second</td>
<td>English</td>
</tr>
<tr>
<td>GEST-S508</td>
<td>Integrated communication - Communication intégrée : concepts et travaux pratiques</td>
<td>Philippe BILTIAU and HUGUES REY</td>
<td>5</td>
<td>24h</td>
<td></td>
<td>Second</td>
<td>English</td>
</tr>
</tbody>
</table>
Mandatory courses

MEMO-S505  **Master-Thesis/Mémoire**
- 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**

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

- **Internship in a Global Context**
  - STAG-S500
  - 25 credits [work placement: 600h]
  - first term
  - English/French

Courses depending on the timing of your Exchange/Internship

**One course chosen from the following**

- **Organisational behaviour, leadership and ethics** |
  - GEST-S4005
  - 5 credits [lecture: 24h]
  - first term
  - French

- **Organisational behaviour, leadership and ethics** |
  - GEST-S488
  - 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**

- **Seminar of Business Strategy** |
  - GEST-S500
  - 5 credits [seminars: 12h]
  - first term
  - English

- **Seminar of Business Strategy** |
  - GEST-S524
  - 5 credits [seminars: 12h]
  - first term
  - English

- **Seminar of Business Strategy** |
  - GEST-S525
  - 5 credits [seminars: 12h]
  - second term
  - English

- **Seminar of Business Strategy** |
  - GEST-S548
  - 5 credits [seminars: 12h]
  - second term
  - English
Field Project

One course chosen from the following

**GEST-S522**  
Field project: Finance | STEFAN DAB (Coordinator)  
5 credits [seminars: 12h] | academic year | English

**GEST-S523**  
Field project: Marketing | Marianne CLAES (Coordinator)  
5 credits [seminars: 12h] | academic year | English

**GEST-S527**  
Field project: Organisation | Denis HERBAUX (Coordinator)  
5 credits [seminars: 12h] | academic year | French

**GEST-S528**  
Field project: Healthcare | Philippe VAN WILDER (Coordinator)  
5 credits [seminars: 12h] | academic year | English

**GEST-S529**  
Field project: Human Resources | Lucy VAN HOVE (Coordinator)  
5 credits [seminars: 12h] | academic year | English

**GEST-S530**  
Field project: IT governance | Georges ATAYA (Coordinator)  
5 credits [seminars: 12h] | academic year | English

**GEST-S538**  
Field project | Hugues PIROTTE (Coordinator), Bernard DE CANNIERE and Alassane Ballé NDIAYE  
5 credits [seminars: 12h] | first and second terms

**GEST-S562**  
Field project: Finance | BRUNO COLMANT (Coordinator)  
5 credits [seminars: 12h] | academic year | English

**GEST-S563**  
Field project: Non profit | Nicolas JANSSEN (Coordinator)  
5 credits [seminars: 12h] | academic year | English

QTEM student specific course

GEST-S510 - Global Business analytics Challenge - 5 crédits