## **NOTICE**

## **Undergraduate Handbook Academic Year (2019/2020)**

Students are informed to refer following annex 8 and annex 9 instead of the annex 8 and 9 given in the Students Handbook

Deputy Registrar Faculty of Science 14/02/2020

ANNEX 8 - IS 1: Industrial Statistics & Mathematical Finance - Level I

| Semester | Pre-<br>requisite | Course<br>Unit     | Title  | Credit<br>Value | Hours        |   |
|----------|-------------------|--------------------|--|-----------------|--------------|---|
| S1       |                   | IS 1006            | Fundamentals of Statistics                     | 3               | 30 L 30 P    | Χ |
|          |                   | IS 1007            | Introduction to Statistical Computing          | 1               | 30 P         | 0 |
| S2       |                   | IS 1008            | Introduction to Probability and Distributions  | 3               | 45 L         | Χ |
|          |                   | IS 1009            | Introduction to Survey Design                  | 2               | 15 L 30 P    | 0 |
| S1       |                   | FM 1011            | Financial Mathematics I                        | 2               | 30 L         | Χ |
|          |                   | FM 1013            | Linear programming                             | 2               | 30 L         | 0 |
|          |                   | PM 1011            | Foundations of Mathematics                     | 2               | 30 L         | Χ |
| S2       |                   | FM 1012            | Mathematical Methods for Finance I             | 2               | 30 L         | 0 |
|          |                   | FM 1014            | Computational Financial mathematics I          | 2               | 60 P         | 0 |
|          | PM 1011           | PM 1013            | Basic Analysis I                               | 2               | 30 L         | Χ |
| S1       |                   | MS 1011            | Computing for Finance*                         | 1               | 30 P         | X |
|          |                   | MS 1001            | Principles of Management                       | 1               | 15 L         | X |
| S2       |                   | MS 1012<br>MS 1003 | Mathematical Economics* Operational Research I | 2               | 30 L<br>30 L | X |
| S1       |                   | CS 1102            | Introduction to Computing                      | 3               | 45 L         | X |
| \$2      |                   | CS 1102            | Fundamentals of Programming                    | 3               | 30 L 30 P    | X |

X: Core courses 

: Compulsory courses 

O: Elective courses 

L: Lectures 

P: Practicals / Labs

## Note:

- 1. Students must offer all core courses from IS, FM, and MS disciplines during Level I and Level II.
- 2. Students must select at least 2 electives from each of IS and FM disciplines during Level I and Level II.

<sup>\*</sup>MS Courses offered by the Department of Mathematics.

ANNEX 9 - IS 2: Industrial Statistics & Mathematical Finance - Level II

| Seme<br>ster | Pre-<br>requisit<br>e | Course<br>Unit                | Title  | Credit<br>Value | Hours                | _           |
|--------------|-----------------------|-------------------------------|--|-----------------|----------------------|-------------|
| S1           |                       | IS 2005                       | Statistical Packages   | 1               | 30 P                 | Х           |
|              |                       | ST 2006                       | Basic Statistical Inference  | 3               | 45 L                 | Х           |
| S2           | ST 2006               | IS 2003<br>ST 2009<br>ST 2010 | Design and Analysis of Industrial Experiments Applied Non-Parametric Methods Introduction to Statistical Modelling | 2<br>2<br>1     | 30 L<br>30 L<br>15 L | X<br>O<br>O |
| S1           | FM 1101               | FM 2101<br>FM 2102<br>PM 2101 | Financial Mathematics II Linear Algebra Basic Analysis II  | 2<br>2<br>2     | 30 L<br>30 L<br>30 L | 0<br>0<br>X |
| \$2          | FM 1011<br>FM 1014    | FM 2013<br>FM 2014<br>PM 2012 | Actuarial Mathematics I<br>Computational Financial Mathematics II<br>Basic Analysis III                            | 2<br>2<br>2     | 30 L<br>60 P<br>30 L | X<br>O<br>X |
| S1           |                       | MS 2011<br>MS 2001            | Numerical Methods for Finance*<br>Statistical Quality Control  | 2<br>2          | 20 L 20 P<br>30 L    | X<br>X      |
| S2           |                       | MS 2012                       | Introduction to Insurance*   | 1               | 15 L                 | Х           |
|              |                       | MS 2004                       | Introduction to Marketing Research   | 1               | 15 L                 | Х           |
| S1           |                       | CS 2001                       | Internet Topologies  | 3               | 30 L 30 P            | Х           |
| S2           |                       | CS 2002                       | Fundamentals of Software Engineering   | 3               | 45 L                 | Χ           |

## Note:

- 1. Students must offer all core courses from IS, FM, and MS disciplines during Level I and Level II.
- 2. Students must select at least 2 electives from each of IS and FM disciplines during Level I and Level II

<sup>\*</sup>MS Courses offered by the Department of Mathematics.