

# Credit risk management

**EM3E5M31**

## Program

**PGE**  
PGE 3A -Finance (FIN)

## UE

Financial Institutions

## Semester

A

## Discipline

Finance

## Contact hours

22 H

## Number of spots

45

## ECTS

5

## Open to visitors

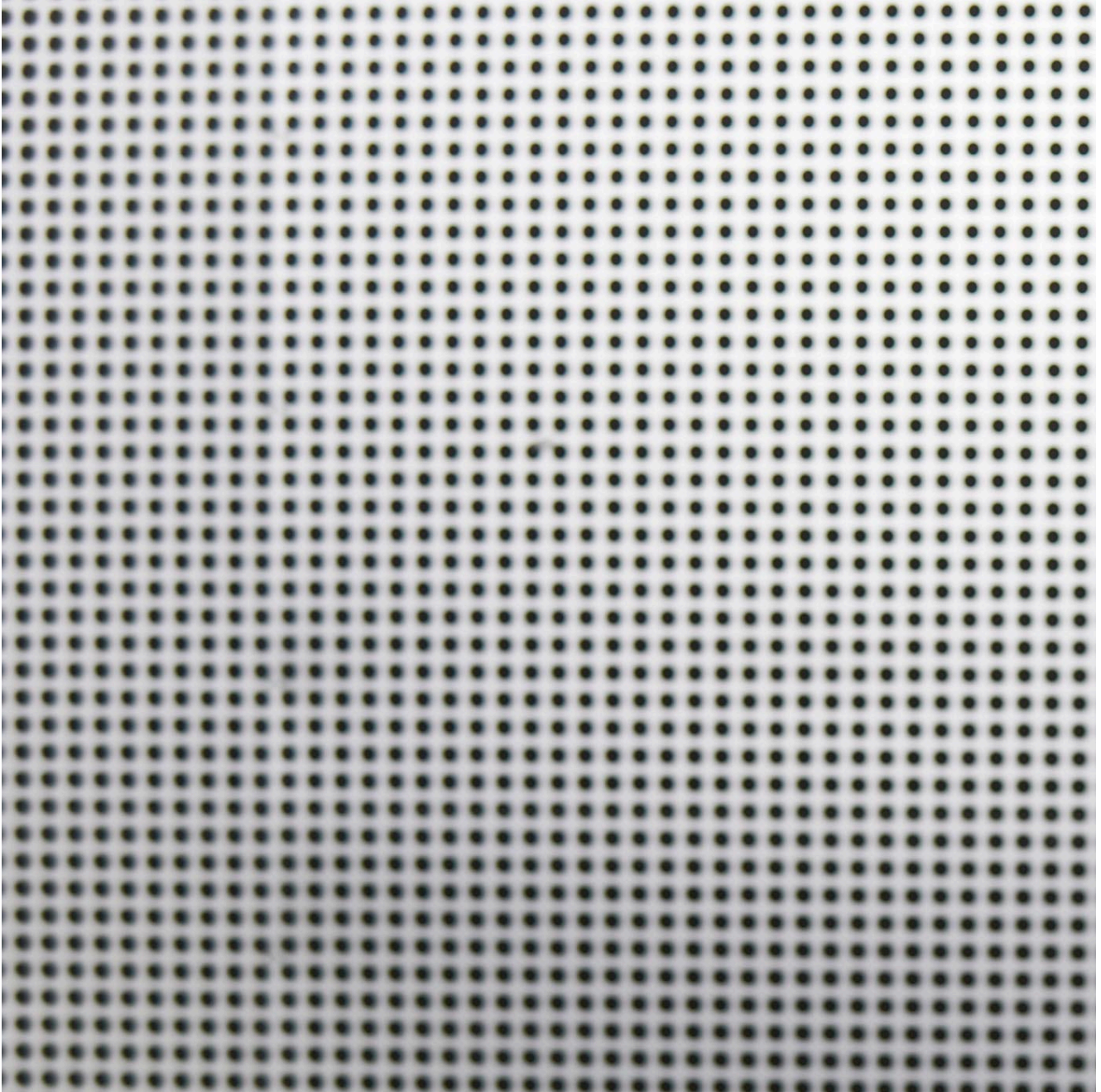
Yes

## Language



## Coordinator

Régis BLAZY



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## List of lecturers

Lecturer(s)	Email	Contact hours - lecture
Régis BLAZY	<a href="mailto:regis.blazy@unistra.fr">regis.blazy@unistra.fr</a>	22 h

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## **Pedagogical contribution of the course to the program**

### **Développer un management à impact grâce aux connaissances et aux outils les plus récents dans les domaines du management**

Developing a strategic and managerial vision in a complex, uncertain and changing environment

Evaluate sustainable managerial practices using managerial concepts and instruments as well as digital tools

Design solutions adapted to organizational problems by applying relevant methodologies

### **Développer des compétences managériales de niveau avancé se traduisant par un leadership responsable**

Recommend decision making by taking a critical approach to driving change in organizations

### **Pratiquer un management à impact dans un environnement multiculturel et international, porté par un "European mindset"**

Communicate in a professional context in (foreign) languages, in writing and/or orally

Formulate solutions to organizational challenges in a multicultural and international context, driven by a "European mindset"

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## **Description**

This course aims at providing a panorama of the main techniques involved in credit risk management.

After having presented the context of those techniques, this module mainly focuses on the prediction tools, such as credit scoring methods (discriminant analysis).

The students are then given the opportunity to work on a real database made of bankrupt SMEs.

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## **Teaching methods**

### **Face-to-face**

- Lectures
- Tutorials

### **In group**

- Exercises
- Other : XIStat application

### **Interaction**

- Discussions/debates
- Games (educational, role play, simulation)

### **Others**

**No items in this list have been checked.**

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## Learning objectives

### Cognitive domain

Upon completion of this course, students should be able to

- - (level 2) **Describe** the legal environment of bankruptcy.
- - (level 3) **Use** XLSTAT(c) software.
- - (level 4) **Examine** the quality of financial reports.
- - (level 5) **Arrange** financial ratios.
- - (level 5) **interpret** the context of credit risk management (crises, regulation, role of rating agencies).
- - (level 6) **Discriminate** between good and bad firms.
- - (level 6) **Appraise** the risk of default.

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### Affective domain

Upon completion of this course, students should be able to

- - (level 4) **prepare** financial ratios
- - (level 4) **compare** good and bad firms regarding their risk of default
- - (level 5) **act** as a credit risk manager (individual ratings)
- - (level 5) **question** the reliability of financial corporate reportings

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## Outline

### 1) Understanding the context of credit risk management

- Definitions: (1) what is lending? (debt contract, collaterals), (2) what are (a) ratings, (b) credit scoring models, (c) credit risk management?
- Predicting "default" or "bankruptcy"? A short view of corporate bankruptcy systems (Europe)
- The importance of information in credit lending: main issues (adverse selection, rationing, collaterals)
- The role of rating agencies in acquiring systematic information (presentation of the main agencies)
- What does happen when ratings are wrong? (the role of the rating agencies in the 2008 financial crisis)
- The rating, as a central element of the Basel agreements (Basel 2 & 3, pillars 1 to 3).

### 2) Acquiring the technique of credit risk prediction (scoring)

- Introduction through a practical example: the National Banks' scoring functions.
- Presentation of linear discriminant analysis: theory & assignments.
- Credit scoring is the central element of credit risk management (elements on: risk factors, probabilities of default, loss given default, exposure at default, correlation of defaults, etc.)

### 3) Managing credit scoring in "real life"

- Preparing a scoring (a question of point of view, accounts reprocessing, most common financial ratios used to build a scoring).
- Presentation of a software dedicated to discriminant analysis: XIStat©
- The students build their own credit scoring, using real corporate datasets.
- Extensions: beyond credit scoring issues (financial marketing, surveys...).

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## **No prerequisite has been provided**

### Knowledge in / Key concepts to master

- EXCEL
- Statistics (probability distribution, variance, covariance, statistical tests)
- Linear algebra (computation on matrixes, vectors)
- Financial analysis & Corporate reporting

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## **Teaching material**

### Mandatory tools for the course

- Computer
- Calculator
- Other :

### Documents in all formats

- Photocopies
- Newspaper articles
- Worksheets

### Moodle platform

- Upload of class documents
- Assessments
- Other : Access to tutorial videos

### Software

- Pack Office (Word, Excel, PowerPoint, Access)
- Other : XIStat (Excel)

### Additional electronic platforms

- Other : Unistra Cloud
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## Recommended reading

Main reading material

In English:

- Credit Risk Scorecards: Developing and Implementing Intelligent Credit Scoring (2005). N. Siddiqi (John Wiley & Sons ed).

- Credit Scoring Methods: cf. your forwarded document #1. M. Vojtek and E. Kocenda.

In French:

Analyse discriminante (Dunod). M. Bardos (Dunod).

Mesure et gestion du risque de crédit dans les institutions financières. J. Petey and M. Dietsch (Revue Banque Ed.).

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Additional literature

Several PDF documents uploaded on Moodle (Credit Risk Management class).

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## EM Research: Be sure to mobilize at least one resource

Textbooks, case studies, translated material, etc. can be entered

“Building legal indexes to explain recovery rates: An analysis of the French and English bankruptcy codes”, R. Blazy, B. Chopard, N. Nigam. Journal of Banking and Finance, 2013. Vol.37, n°6, pp 1936-1959.

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## Assessment

### List of assessment methods

**Final evaluation** Other (date, pop quiz, etc.) : 20/10/2023

Written (120 Min.) / Individual / English / Weight : 100 %

**Details** : Written exam (closed-book) scheduled at a date relatively close to the end of the last class-session.

**This evaluation is used to measure ILO1.3-PGE, ILO2.2-PGE, ILO4.1-PGE, ILO4.2-PGE**