

## Mathematics

**ECTS :** 4

**Volume horaire :** 36

### **Description du contenu de l'enseignement :**

This subject tries to teach: - derive functions of one or two real variables - obtain notions of topology and its applications in  $\mathbb{R}^2$  - know how to find stationary points and find their nature for functions of one or two real variables - know the Taylor formulas (first and second order) and their applications - know how to optimize functions of two real variables with explicit restrictions - pose and solve problems taken from an economic situation with a mathematical model.

### **Mode de contrôle des connaissances :**

#### **Grading Criteria**

Midterm 1	25%
Midterm 2	25%
Final Exam	50%

### **Bibliographie, lectures recommandées :**

- Isabelle Cato, Ivan gentil, Geneviève Pons. Mathématiques - Éléments de calculs différentiels pour l'économie. , Ellipses