

Mathematics

Maths S2

IDENTIFICATION

CODE : PC-S2-MA-AEP
ECTS : 5.0

HOURS

Lectures : 19.5 h
Seminars : 45.0 h
Laboratory : 0.0 h
Project : 0.0 h
Teacher-student
contact : 64.5 h
Personal work : 67.0 h
Total : 131.5 h

ASSESSMENT METHOD

- IE1 : duration 1,5 h, coefficient 1,5.
- IE2 : duration 1,5 h, coefficient 1,5.
- IEF : duration 3h, coefficient 3.
Concepts from the first semestre
and seen throughout the semestre
are necessary to all the evaluations.

TEACHING AIDS

Online documents on Moodle.

TEACHING LANGUAGE

French

CONTACT

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AIMS

Follows the first semester.
One variable functions calculus and/or Linear Algebra.
Lessons are in French.

Contribution to the following abilities in Engineer School :

- C1 - analyse a system or issue
- C2 - Exploit a Real or Virtual system Model
- C6 - Communicate an analysis, a scientific path, in an argued and logical discussion

Tests based on the following abilities :

- C11 - To split up a problem or a system into its component parts in interaction
- C14 - To build a scheme of the system or the problem
- C15 - To identify problematics or objectives
- C16 - To build a proof.
- C21 - To compute by graphical resolution an exact or approximate solution
- C23 - To estimate errors induced by the model implementation
- C54 - To interpret some results.

CONTENT

One-variable functions calculus and linear algebra following the first semester curriculum.

Over the whole year :

- Usual functions
- Limits
- Continuity
- Differentiability
- Equivalents
- Taylor expansions
- Polynomials
- Vector spaces
- Linear Maps
- Matrices

BIBLIOGRAPHY

Azoulay-Avignant : Mathématiques [Ediscience]
Guinin-Aubonnet-Joppin : Précis de Mathématiques [Bréal]
Thuillier-Belloc : Mathématiques [Masson]
Lemberg: Bien commencer ses études en mathématiques [Vuibert]
Balac-Sturm : Algèbre et Analyse 1ère année et Exercices de 1ère année [PPUR]

PRE-REQUISITE

PC-S1-MA-**

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