

## Speciality Maths - Terminale

7 periods, if chosen as a speciality.

This speciality can be completed with the Expert Maths option, taught in French, for students who wish to continue their studies in *Classes préparatoires aux grandes écoles*.

In the English section of EIPACA, students follow the French mathematics curriculum but taught entirely in English.

Key words of vocabulary are given in French as well as in English, to facilitate a possible passage back into the French system at a later date.

Algebra and geometry (3D):

- enumerative combinatorics
- manipulation of vectors, lines and planes in space
- orthogonality and distances in space
- parametric representations of lines and cartesian equations of planes

Analysis:

- sequences (limits, properties with proof by induction)
- limits of functions
- more differentiation, convexity
- continuity of functions
- natural logarithm function
- sine and cosine functions (solving equations and inequalities, variations....)
- primitives, differential equations
- integration

Probability:

- succession of independent events, Bernoulli schema, binomial distribution
- sum of random variables
- concentration, law of large numbers

Algorithms and programming:

- Python

For more details on the French mathematics curriculum:

[https://cache.media.education.gouv.fr/file/SPE8\\_MENJ\\_25\\_7\\_2019/90/7/spe246\\_\\_annexe\\_1158907.pdf](https://cache.media.education.gouv.fr/file/SPE8_MENJ_25_7_2019/90/7/spe246__annexe_1158907.pdf)