

TOLC-LP syllabus

Logic and reading comprehension

Logic and reading comprehension questions are designed to test candidates' aptitude rather than to ascertain acquisitions achieved in higher studies. They do not, therefore, require any specific prior preparation.

Mathematics

- **Set theory**
sets and main set operations (union, intersection, difference, complement and Cartesian product); combinatory calculus (combinations, permutations and arrangements)
- **Arithmetic**
number sets and main arithmetic operations. Decimal numbers and rounding; maximum common divisor, minimum common multiple; arithmetic mean. Divisibility, prime numbers and factorization into prime factors
- **Algebra**
monomials and polynomials; algebraic expressions, fractions and simplification of expressions; powers with integer and fractional exponent. Algebraic equations and inequalities; systems of equations and inequalities
- **Exponentials and logarithms**
algebraic operations with exponentials and logarithms; changes of base; simple exponential and logarithmic equations and inequalities
- **Analytic geometry**
cartesian coordinates in the plane; equation of a line through two points; slope of a line; equation of a line through a point and parallel or perpendicular to a given line. Distance between two points in the plane; geometric locus
- **Plane geometry**
plane figures and their elementary properties. Pythagoras' Theorem; properties of similar triangles; perimeter and area of principal plane figures. Goniometry and Trigonometry
- **Solid geometry**
solids in space and their elementary properties; surfaces and volumes of the main solids

- **Mathematical modeling**

percentages and proportions; calculating the probability of an event in simple situations; units of measurement; reducing a concrete problem to a mathematical one.

English section

Depending on the result obtained in the test, the grid below shows the initial preparation level and how to improve your results, if necessary.

POINTS	RECOMMENDED ENGLISH COURSE
≤ 6	Take a beginner English course (A1)
7 - 16	Take a first level English course (A2)
17 - 23	Take an intermediate English course (B1)
24 - 30	Take the B1 level English exam with no need to take a course