MATHEMATICS TEST PROGRAM
FOR ACCESS AND ADMISSION TO HIGHER EDUCATION FOR INTERNATIONAL STUDENTS

General Objectives:
- Understand some basic notions and concepts of mathematics;
- Take advantage of the logical, methodical and organized nature of mathematics;
- Create or reinforce sustained bases for the future assimilation of higher-level mathematics knowledge.

Content Program:
1. Basic concepts
    1.1. Algebra of fractions (addition, subtraction, multiplication and division)
    1.2. Algebra of exponents (addition and subtraction of exponents, multiplication and division of exponents, multiplication and division of bases)
    1.3. Polynomial algebra (multiplication and division including Ruffini's rule)
2. Functions in R
    2.1. Some functions
        2.1.1. Polynomial function (linear and quadratic)
        2.1.2. Rational function
        2.1.3. Exponential and logarithmic functions
    2.2. Domain and function zeros
    2.3. Solving algebraic equations

Bibliography:
1. Sullivan, M. (2017) Precalculus, Pearson, 10th edition
2. Croft, A.; Davison, R. (2019) Mathematics for Engineers, Pearson Education, 5th edition.
3. www.khanacademy.org