

## Education for a Discussion of Analytical Geometry in High School Based Vectors

## Flávia Aparecida Reitz Cardoso<sup>1</sup>, Thelma Pretel Brandão Vecchi<sup>2</sup>, Diogo Heron Macowski<sup>3</sup>, Regiani Aparecida Almeida<sup>4</sup>

<sup>1,2,3</sup>Federal Technological University of Paraná (Brazil) <sup>4</sup>Estadual University of Maringá (Brazil) *flaviareitz@gmail.com, thelmapby@gmail.com, diogoheron@gmail.com, regiani\_al@hotmail.com* 

## Abstract

Due to the great problem of learning in universities that has been growing regarding to the teaching of analytic geometry, it is of great interest to teach within an approach that makes it closer to reality, which is able to attract the interest and leads to the understanding by the students since they start in High School. So that, also the work as educators have a more relevant and social impact for a better preparing of the students for situations that they will probably face. We are also concerned with the teaching methodology, as the university is the repository of knowledge acquired by human effort over the centuries, and these skills can help, even within a topic with an established designation, relax and discuss the various interpretations of its possible content and its various ways for presentations. In this sense, we proposed here suggestions for the teaching of geometry in High School, trying to answer and discuss the differences between the analytic geometry studied in Higher Education in the exact areas as well as in High School, looking at how it is proposed in the State Curriculum Guidelines (DCE) of Mathematics of the Parana and in the National Curriculum Guidelines for the Middle Teaching and analyzing the methodology used in some textbooks for the teaching of analytic geometry. Concerning to the arrangement and purpose of the activities, we are aware we do not cover all the situations related to the vectors, however, the proposals led to the creation of other activities that will complement the first ones.

Keywords: Analytic Geometry. Higher Education, High School. Learning.