

## DESCRIPTION OF THE COURSE OF STUDY FOR EXCHANGE STUDENTS

Name of the course in	English	<b>Analitic Geometry</b>
	Polish	<b>Geometria analityczna</b>

### 1. LOCATION OF THE COURSE OF STUDY WITHIN THE SYSTEM OF STUDIES

1.1 Field of study	<b>Mathematics</b>
1.2 Level of study	<b>Undergraduate (Bachelor)</b>

### 2. GENERAL CHARACTERISTICS OF THE COURSE OF STUDY

2.1 Language of instruction	<b>English</b>
2.2 Semesters in which the course of study is offered	<b>Spring</b>
2.3 ECTS credits	<b>4</b>

### 3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

3.1. Form of classes	<b>Lecture, classes</b>
3.2. Form of assessment	<b>Exam (lecture), assessment (classes)</b>

### 4. OBJECTIVES AND SYLLABUS CONTENT

<b>4.1. Course objectives</b> <i>C1.</i> Introduction to basic knowledge of analitic geometry. <i>C2.</i> Learn and understand the standard form for the equations of line, of plane and quadratic curves. <i>C3.</i> Developing the ability to use basic notions and facts of analitic geometry. <i>C3.</i> Making the habit of learning, improving one's own work technique.
<b>4.2. Detailed syllabus</b> <i>1.</i> Vectors in three-dimensional space, different products of vectors. <i>2.</i> Equations of line in a plane. <i>3.</i> Equations of planes. <i>4.</i> Equations of line in a space. <i>5.</i> Quadratic curves, circles and ellipses. <i>6.</i> Hyperbolas and parabolas. <i>7.</i> Conics in general, conic sections and Dandelin spheres. <i>8.</i> Transformations of coordinates.