1 Course title and credit points
The course is titled Mathematics for Technical Artist/Matematik för Technical Artist and awards 7,5 ECTS credits. One credit point (högskolepoäng) corresponds to one credit point in the European Credit Transfer System (ECTS).

2 Decision and approval
This course is established by Department of Mathematics and Science 2013-04-30. The course syllabus was revised by Head of Department of Mathematics and Natural Science and applies from 2016-06-01.
Replaces MA1413.

3 Objectives
The course aims to introduce basic mathematical concepts and methods in analysis, algebra and linear algebra to give a basis for further studies in the program.

4 Content
• Problem solving and problem-solving strategies
• Algebra and functions
• Trigonometry
• Basic Linear Algebra

5 Aims and learning outcomes
After completing this course the student should be able to:
• use different methods for working with problem solving in a structured way
• use the concept of priority rules, fractions, and powers of expression
• use scale and uniformity
• calculate the sides and angles in triangles
• use trigonometric formulas
• perform mathematical calculations with vectors and to calculate the intersection points and the distance between lines and planes.
• calculate with matrices and use the theory of linear transformations such as scaling, rotation, reflection and translation
• understand and apply the theory of determinants

6 Learning and teaching
The course consists of lectures, exercises and projects.
The teaching language is Swedish.

7 Assessment and grading

<table>
<thead>
<tr>
<th>Code Module</th>
<th>Credit</th>
<th>Grade</th>
</tr>
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<tbody>
<tr>
<td>1310 Written examination</td>
<td>4.5 ECTS</td>
<td>A-F</td>
</tr>
<tr>
<td>1320 Project 1</td>
<td>1.5 ECTS</td>
<td>G-U</td>
</tr>
<tr>
<td>1330 Project 2</td>
<td>1.5 ECTS</td>
<td>G-U</td>
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</tbody>
</table>

The course will be graded A Excellent, B Very good, C Good, D Satisfactory, E Sufficient, FX Insufficient, supplementation required, F Fail. If grade FX are given, the student may after consultation with the course coordinator / examiner get an opportunity to within 6 weeks complement to grade E for the specific course element.

8 Course evaluation
The course coordinator is responsible for systematically gathering feedback from the students in course evaluations and making sure that the results of these feed back into the development of the course.

9 Prerequisites
The special prerequisite for this course, besides basic eligibility for university studies, is field Eligibility 7: Mathematics B and Physics A.

10 Field of education and subject area
The course is part of the field of education and is included in the subject area Mathematics.
11 Restrictions regarding degree
The course cannot form part of a degree with another course, the content of which completely or partly corresponds with the contents of this course.

12 Course literature and other teaching material
Material distributed by the Department may apply.