

## **Applied Maths & Physics 1 (1DAE - GD+IGP+SD)**

### **Theo-CONTENT**

- Theo01. Trigonometry fundamentals
- Theo02. Functions: trigonometric and inverse (atan2)
- Theo03. Vectors
- Theo04. Kinematics (rectilinear and projectile motion)
- Theo05. Dot product
- Theo06.+Lab (no lessons due to the midterm Q-week)**
- Theo07. Cross product
- Theo08. Matrices
- Theo09. Transformations
- Theo10. Scenegraps
- Theo11. View transformation
- Theo12. Geometric Algebra (initiation)

### **APPROACH**

Theory: 2T weekly, Midterm-tested pen & paper (or remote)

Lab: 2L, Midterm-tested pen & paper (or remote), open-book including test tool-use (*strategic competence: when to use which operation*) on laptops-in-flight-mode

ExerciseAtHome (bridging previous theory to successive lab) **via Leho/Assignments**

### **GRADING**

#### **1<sup>st</sup> Exam chance**

10%ExercisesAtHome + 45%Midterm(T+L) + 45%Final(T+L)

#### **2<sup>nd</sup> Exam chance**

40%T + 60%L exam

### **MATERIALS**

ISBN 978-9401432047 (Animation Maths, LannooCampus)

Tool: **GeoGebra5+** (<https://www.geogebra.org/>)