280600 - Fundamentals of Mathematics I

Coordinating unit: 280 - FNB - Barcelona School of Nautical Studies
Teaching unit: 749 - MAT - Department of Mathematics
Academic year: 2017
Degree: BACHELOR'S DEGREE IN NAUTICAL SCIENCE AND MARITIME TRANSPORT (Syllabus 2010).
(Teaching unit Compulsory)
ECTS credits: 6
Teaching languages: Catalan

Teaching staff
Coordinator: JOAN CARLES LARIO LOYO - MARIA MONTSERRAT VELA DEL OLMO
Others:
JOSE GRANÉ MANLLEU - 1
JOAN CARLES LARIO LOYO - 1

Degree competences to which the subject contributes

Specific:
3. Ability to solve math problems that may arise in engineering. Ability to apply knowledge about: linear algebra, geometry, differential geometry to, differential and integral calculus, differential equations and partial differential, numerical methods, algorithmic numerical and statistical optimization.

Transversal:
1. EFFECTIVE USE OF INFORMATION RESOURCES - Level 1. Identifying information needs. Using collections, premises and services that are available for designing and executing simple searches that are suited to the topic.

Learning objectives of the subject

Study load

<table>
<thead>
<tr>
<th>Total learning time: 150h</th>
<th>Hours large group: 30h</th>
<th>20.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours medium group:</td>
<td>30h</td>
<td>20.00%</td>
</tr>
<tr>
<td>Hours small group:</td>
<td>0h</td>
<td>0.00%</td>
</tr>
<tr>
<td>Self study:</td>
<td>90h</td>
<td>60.00%</td>
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### Content

**(ENG) Nombres reals i nombres complexos.**

Degree competences to which the content contributes:

**(ENG) Vectors: l'espai vectorial R^n.**

Degree competences to which the content contributes:

**(ENG) Matrius, determinants i sistemes d'equacions lineals.**

Degree competences to which the content contributes:

**(ENG) Transformacions lineals.**

Degree competences to which the content contributes:

**(ENG) Trigonometria plana i esfèrica.**

Degree competences to which the content contributes:

**(ENG) Probabilitat.**

Degree competences to which the content contributes:

### Bibliography

**Basic:**


**Complementary:**
