

Code: 1672 Topics in Analysis**Degree:** 2nd cycle – Mathematics Applied to Biological Sciences**Curricular Year:** 1st**Semester Course:** 1st**Credits:** 8 ECTS**Compulsory****Language:** Portuguese/English**Responsible:** Maria Isabel Varejão de Oliveira Faria**Other lecturer(s):** -**Web Site:** <http://www.isa.utl.pt/home/node/3886>**1. Contact hours:****Lecture/Practicals 84 Others 28 Total 112****2. Objectives:**

To provide the basic knowledge of Mathematical Analysis required for the rest of the MSC course

3. Programme:

Calculus in one variable

Fundamental theorems and Taylor formula. Antiderivatives and integrals.

Vector Calculus

Continuity and differentiability. Implicit function theorem. Extrema. Multiple integrals.

Series and power series.

4. Bibliography:**Main Bibliography**

J. Campos Ferreira, Introdução à Análise Matemática, Fundação Calouste Gulbenkian

Susan J. Colley, Vector Calculus, Prentice-Hall

5. Assessment:

Final exam

6. Estimated Workload:

224

Hours

7. Last Update:

15/7/2010