uc3m Universidad Carlos III de Madrid

Linear algebra

Academic Year: (2018 / 2019) Review date: 16-04-2018

Department assigned to the subject: Mathematics Department Coordinating teacher: CUESTA RUIZ, JOSE ANTONIO

Type: Basic Core ECTS Credits: 6.0

Year: 1 Semester: 1

Branch of knowledge: Engineering and Architecture

DESCRIPTION OF CONTENTS: PROGRAMME

- 1. Complex numbers.
- 2. Systems of linear equations.
- 3. Vector spaces.
- 4. Matrix algebra.
- 5. Eigenvalues and eigenvectors. Matrix diagonalization.
- 6. Orthogonality.
- 7. Least squares.
- 8. Singular value decomposition.

% end-of-term-examination: 60

% of continuous assessment (assignments, laboratory, practicals...):

BASIC BIBLIOGRAPHY

- David C. Lay Linear algebra and its applications, Addison Wesley, 2014