



**UNIVERSIDADE FEDERAL DE SANTA CATARINA  
CENTRO DE CIÊNCIAS FÍSICAS E MATEMÁTICAS  
PÓS-GRADUAÇÃO EM MATEMÁTICA PURA E APLICADA**

**MTM410019 Linear Algebra**

Pre-requisite: x-x

Weekly lesson hours: 06h

**Discipline syllabus:** Revision of basic concepts about vector spaces: subspaces, base and dimension, coordinates. Revision of linear transformations, the space of linear transformations and isomorphisms. 2, 3, 6, 7, 8, 9 and 10 of the textbook, that is, dual and bidual spaces, elementary canonical forms, canonical form of Jordan, spaces with internal product, operators on spaces with internal product and bilinear forms.

**BIBLIOGRAPHIC REFERENCES:**

1. K. Hoffman and R. Kunze – Álgebra Linear – LTC, 2ª edição 1979.
2. COMPLEMENTARY BIBLIOGRAPHY
3. W. H. Greub – Linear Algebra – Springer-Verlag, third edition 1967.
4. S. Roman - Advanced Linear Algebra – Springer-Verlag, third edition 2008.
5. E. L. Lima - Álgebra Linear – IMPA, sexta edição 2003.
6. P. R. Halmos – Finite-dimensional vector spaces – Springer, second edition 1958.