



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

MTM510011 Operator Algebras

Pre-requisite: MTM410029 Functional Analysis

Weekly lesson hours: 06h

Discipline syllabus: Banach Algebras, Representation of Gelfand, C^* -Algebras, von Neumann Algebras, Theory of Representations in Hilbert Spaces, Approximately Finite Algebras.

BIBLIOGRAPHIC REFERENCES

Text book:

1. Gerard J. Murphy, C^* -Algebras and Operator Theory, Academic Press, 1990.

COMPLEMENTARY BIBLIOGRAPHY

1. R. V. Kadison and J. R. Ringrose, Fundamentals of the Theory of Operator Algebras, Volumes I, II, III, IV, Amer. Math. Soc., 1997.
2. M. Takesaki, Theory of Operator Algebras, Volumes I, II, III, Springer, 1979-2003.
3. V. S. Sunder, Functional analysis, Spectral theory, Birkhuser Advanced Texts, Birkhuser Verlag, Basel, 1997.
4. W. Arveson, An Invitation to C^* -Algebras, Springer 1976.
5. G. K. Pedersen, C^* -algebras and their Automorphism groups, Academic press, 1979.
6. O. Bratteli and D. W. Robinson, Operator Algebras and Quantum Statistical Mechanics, Volumes I, II, Springer, 1987-2002.
7. K. Davidson, C^* -Algebras by Example, Amer. Math. Soc, 1996.