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

MTM410057 Applied Functional Analysis

Pre-requisite MTM410029 Functional Analysis

Weekly lesson hours: 06h

Discipline syllabus: Hilbert Spaces and Banach Spaces, Topological Spaces, Banach-Alaoglu's Theorem, Locally Convex Spaces, Separation Theorems, Tempered Distributions, Fourier Transform, Compact Operators, Fredholm's Alternative, The Spectral Theorem for Self- Linear Operators Densely Defined.

 BIBLIOGRAPHIC REFERENCES

Text book:

1.   REED, M., SIMON, B – Methods of Modern Mathematical Physics I: Functional Analysis. Academic Press.

COMPLEMENTARY BIBLIOGRAPHY

1.   W. RUDIN, Functional analysis, 1991.
2.   C.W. GROETCH, Elements of applicable functional analysis, UMI books on demand.