



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

**MTM510007 Probability and Markov Processes**

Pre-requisite: MTM410027 Measure and Integration

Weekly lesson hours: 06h

**Discipline syllabus:** Chapters 1, 2 and 3 of Textbook 1 and Chapter 15 of Textbook 2, covering the axiomatic definition, tools and basic results in Probability Theory and the fundamental results in the study of Markov Chains.

**BIBLIOGRAPHIC REFERENCES**

*Text book:*

1. James, B. R.; Probabilidade: um curso em nível intermediário. 3a ed., IMPA, Rio de Janeiro, 2004.
2. Feller W.; An introductory to probability theory and its applications vol.1. 3a ed., Wiley, New York, 1967.

**COMPLEMENTARY BIBLIOGRAPHY**

1. Feller W.; An introductory to probability theory and its applications vol.2. 3a ed., Wiley, New York, 1971.
2. Grinstead, C. M., Snell, J. L.; Introduction to Probability 2nd ed. American Mathematical Society, Rhode Island, 1997.
3. Hoel, P. G.; Introduction to Mathematical Statistics. 3 ed. Wiley, New York, 1962.
4. Meyer, P. L.; Probabilidade: aplicações à estatística. 2a ed., Livros Técnicos e Científicos, Rio de Janeiro, 1983.
5. Ross, S. M.; Introduction to Probability Models. 6 ed, Academic Press, San Diego, 1997.
6. Stroock, D. W.; An introduction to Markov processes. Springer-Verlag, New York, 2005.