



UNIVERSIDADE FEDERAL DE SÃO CARLOS
PRÓ – REITORIA DE PÓS-GRADUAÇÃO

COURSE DESCRIPTION SHEET



1. Course Name: **Wood Chemistry: Structure and Properties of Constituents**
2. Course Code: 218
3. Semester offered: 2nd
4. Total course credits: 10
5. Course workload
 - 5.1. Lecture classes: 60h
 - 5.2. Practical classes: 90h
 - 5.3. Seminars:
6. Course Syllabus:
 - Course Presentation: Introduction to Wood Chemistry and review of main organic functions. Cell wall structure and ultrastructure.
 - Wood Chemical Composition: Cellulose.
 - Wood Chemical Composition: Polyoses and Wood Chemical Composition: Lignin.
 - Wood Chemical Composition: Extractives.
 - Seminars to be determined
7. Main Bibliography:
 - ABREU, H.S. Biossíntese de Lignificação. Editora Univ. Rural, Rio de Janeiro, 74p., 1994.
 - ABREU, H.S. & ALBUQUERQUE, C. E. C. Receituário Químico, 1996. Imprensa Universitária, Rio de Janeiro, 18p.
 - FENGEL, D.; Wegener, G. Wood. Chemistry, Ultrastructure, Reactions. Walter de Gruyter, Berlin, New York, 1989.
 - ROWELL, R. M. Wood chemistry and wood composites, CRC Press, 504p..
 - CHAFFEY, N. J. Wood formation in tree (Cell and molecular biology techniques, CCR/PRESS, 2005.
 - LATORRACA, J.V.F e ABREU, H. S. Extrativos da Madeira, 1997. Departamento de Produtos Florestais, Rio de Janeiro. 27p.
 - D'ALMEIDA, M. L. Composição química dos materiais lignocelulósicos. In: Celulose e Papel - Tecnologia de fabricação da pasta celulósica. Vol. I., IPT/SENAI, 2 a edição, p. 45 - 105, 1988.
 - SJÖSTROM, E. Wood chemistry: Fundamentals and Applications, Academic Press, New York, 223p., 1981

- BOSSHARD, H.H. Holzkunde. Vol. 2: Zur Biologie, Physik und Chemie des Holzes. Basel, Stuttgart, Birkhäuser Verlag, 1975
- BROWNING, B. L. Methods of wood chemistry. Vol. I and II, Wiley Interscience, 1967