FEDERAL UNIVERSITY OF CEARÁ
Provost Office of Research and Graduate Studies

COURSE PROGRAM

1. PROGRAM:	
Program	GRADUATE PROGRAM IN CHEMISTRY
2. COMPONENT TYPE:	
Activity ( )	**Course (X)** **Module ( )**
3. LEVEL:	
Master´s Degree (X)	Doctorate (X)
4. COMPONENT IDENTIFICATION:	
Name:	ELECTOCHEMISTRY
Code:	CEP8033
Hours:	64 horas
Credits:	4
Optional course:	Yes (X) No ( )
Compulsory course:	Yes (X) No (X)
Area:	Physical Chemistry
5. PROFESSOR:	
Pedro de Lima Neto e Adriana Nunes Correia	
6. ABSTRACT:	
The fundamentals and the understandings of interfaces and electrochemical kinetics is present in this course in order to provide a good formation for the student of the Graduate Program in Chemistry.	
7. COURSE PROGRAM:	
Electrochemical interface: physical models of the double layer. Electrochemical kinetics: the Butler-Volmer equation; overpotential controlled by activation, ohmic and mass transfer. Experimental methods to investigate the kinetics of the electrochemical electron transfer reaction.	
8. EVALUATION PROCESS:	
Theoretical evaluation - 70% Seminars - 30%	
9. BIBLIOGRAPHY:	
1. Brett, A. M. O.; Brett, C. M. A.; Eletroquímica: Princípios, Métodos e Aplicações, Oxford University Press, London, 1996. 2. Bockris, J. O'M; Reddy, A. K. N.; Modern electrochemistry, Vol. 1 e 2, Plenum/Roseta, N.Y, 1977. 3. Hamann, C. H.; Hammett, A.; Vielstich, W.; Electrochemistry, Wiley-VCH, 1998. 4. Sawyer, D. T.; Sobkowiak, A.; Roberts, J. L.; Electrochemistry for Chemists, John Wiley & Sons Inc., N.Y., 1995. 5. Bard, A.J.; Faulkner, L. R.; Electrochemical Methods: fundamentals and Applications, 2nd. ed. John Wiley & Sons Inc.,N.Y., 2000.	