



**FEDERAL UNIVERSITY OF CEARÁ**  
**Provost Office of Research and Graduate Studies**

**COURSE PROGRAM**

<b>1. PROGRAM:</b>		
Program	GRADUATE PROGRAM IN CHEMISTRY	
<b>2. COMPONENT TYPE:</b>		
Activity ( )	Course ( X )	Module ( )
<b>3. LEVEL:</b>		
Master's Degree ( X )	Doctorate ( X )	
<b>4. COMPONENT IDENTIFICATION:</b>		
Name:	ENVIRONMENTAL CHEMISTRY	
Code:	CEP9599	
Hours:	96	
Credits:	06	
Optional course:	Yes (X)                      No ( )	
Compulsory course:	Yes ( )                      No ( X )	
Area:	ANALYTICAL CHEMISTRY	
<b>5. PROFESSOR:</b>		
André Henrique B. Oliveira Elisane Longhinotti Helena Becker		
<b>6. ABSTRACT:</b>		
Introduction to Environmental Chemistry. The atmosphere. The terrestrial environment. The Oceans. The Environmental legislation.		
<b>7. COURSE PROGRAM:</b>		
Introduction to the course. The atmosphere: natural sources. Stratosphere chemistry: the ozone layer. Chemistry and pollution of the troposphere. Greenhouse effect and global warming. Terrestrial environment: residues, soils and sediments. Weathering. The chemistry of natural waters. Pollution. Purification and remediation. The oceans: Physical and Chemical characteristics of sea water. Pollution. Environmental legislation.		
<b>8. EVALUATION PROCESS:</b>		
- Theoretical assessment - 100%  - Frequency participation (≤ 75%).		
<b>9. BIBLIOGRAPHY:</b>		
1. ANDREWS, J.E., BRIBLECOMBE, P., JICKELLS, T.D., LISS, P.S. An Introduction to Environmental Chemistry. Blackwell Science Ltd, Oxford. 1996. 209p.		

2. BAIRD, C. Química Ambiental. Tradução Maria Angeles L. Recio e Luiz Carlos M. Carrera. 2, ed. Porto Alegre, Bookman, 2002. 622p.
3. LENZI, E.; FAVERO, L. O. B.; LUCHESE, E. B. Introdução à Química da água. Ciência, vida e sobrevivência. LCT. Rio de Janeiro. 2009. 604p.
4. MANAHAN, S.E. Fundamentals of Environmental Chemistry. Lewis Publishers, London. 1993. 844 p.  
Complementar
5. Environmental scientific papers and related areas.