



SCHOOL PLAN

University Unit: Engineering school		
Graduate program: Geospatial Sciences and Applications		
Course: <input checked="" type="checkbox"/> Academic Master <input type="checkbox"/> Professional Master's <input checked="" type="checkbox"/> Doctorate degree		
Discipline : Radioactive Processes		
Teacher (s): Carlos Guillermo Giménez de Castro		
Note: <p>The Geospatial Science and Applications course is a multidisciplinary course encompassing research in Solar Physics, Terrestrial Solar Relations, Astronomy, Particle Physics and others. The course subjects reflect this multidisciplinary nature and often require more than one teacher, who specializes in topics of the same discipline.</p>		
Workload: 48 h	Credits 4	<input type="checkbox"/> Required <input checked="" type="checkbox"/> Optional <input type="checkbox"/> Eleffective
Description: <p>Electromagnetic radiation from a plasma is one of four possible ways of receive the information of the distant places of the Universe. Understanding the physical mechanisms in the origin of this radiation is fundamental to know the local physical parameters in the objects where the radiation was generated. In this course the incoherent radiation of the bremsstrahlung and synchrotron type, thermal and non-thermal, as well as the Compton emission will be studied. The collective effects of plasma will be taken into account through the study of plasma and maser type emissions. Finally, the mechanisms of acceleration of particles in a plasma will be presented.</p>		
Program content:		
Evaluation criteria <p>According to the General Regulation of Stricto Sensu Post-Graduation, Art. 98: A - excellent: corresponds to grades in the interval between grades 9 and 10; B - good: corresponds to grades in the interval between grades 8 and 8.9; C - regular: corresponds to grades in the interval between grades 7 and 7.9; R - disapproved: corresponds to grades in the interval between degrees 0 and 6.9 "</p>		
Bibliography: <p>The Physics of Astrophysics: Radiation", Shu, F.H., Vol I, University Science Books, 1991. Plasma Astrophysics", Melrose, D.B., Vol I and II, Gordon and Breach, Science Publishers Inc., 1980.</p> Complementary Instabilities in Space and Laboratory Plasma", Melrose, D.B., Cambridge University Press, 1986.		



UNIVERSIDADE PRESBITERIANA MACKENZIE

Pró-Reitoria de Pesquisa e Pós-Graduação
Coordenadoria Geral de Pós-Graduação *Stricto Sensu*



Schedule	
Date	Theme