توصيف مساق

أولا: معلومات عامة

اسم المساق	التحليل الطيفي و الميكروسكوبي للم
رقم المساق	CHEM4334
الكلية	
القسم	
نوع المتطلب	تخصص
المستوى الدراسي	4
الساعات المعتمدة نظري	3
الساعات المعتمدة عملي	0
المتطلبات	

ثانيا : أهداف المساق

1 - The purpose of this course is to teach the chemist how to identify compounds from the complementary information afforded by these types of spectra: mass, infrared nuclear magnetic resonance and ultraviolet. Essentially, the molecule in question subjected to energy probes, and the molecules responses are recorded as spectra. The goal of this courses a rather modest level of sophistication and pertise in each of these areas of spectrometry. The application for spectral methods including spectrometric identification of organic compounds including mass spectrometry deals with instrumentation mass spectrum determination of a molecular formula, recognition of the molecular ion peak, fragmentation, rearrangement derivatives, mass spectra of some chemical class, INFRARED spectrophotometer . (IR) Theory and Instrumentation, sample handling, interpretation of spectra, characteristic groups absorption of organic molecules.

ثالثا :المهارات المستهدفة من تدريس المساق

مهارات المعرفة والمفاهيم	* Proton magnetic resonance spectrometry .1H NMR, instrumentation and sample handling chemical shift, simple spin coupling of proton to other nuclei, chemical shift equivalence and magnetic equivalence AMX, ABX AND ABC systems with three coupling constant. Strongly and weakly coupled spin systems effects of a chiral center vicinal and germinal coupling in rigid systems spin decoupling shift regents. 13C NMR spectrometry, Interpretation, chemical shifts, spin coupling, peak assignment problem quantitative analysis. New dimensional in NMR (2D3D) 1H-1H connectivity, 1H-13C connectivity, 13C-13C connectivity ultraviolet spectrometry. Theory, sample handling characteristics absorption of organic compounds.