

Selected courses in English in the academic year 2010/11

KUL institute/department:	Department of Biophysics, Institute of Biotechnology
Course title:	Application of molecular spectroscopy in studying biological systems
Lecturer (name, surname):	Agnieszka Sujak
Title/position:	D Sc/ Professor of Biophysics
ECTS credits:	3
Course duration (1 st , 2 nd or both semesters):	1 st semester
Number of hours per week:	2
Course type:	Lecture/
Level:	intermediate
Course description:	The course comprises of the description of selected spectroscopic techniques such as: UV-Vis spectroscopy, infra-red Fourier transformed spectroscopy, Raman spectroscopy, CD spectroscopy, NMR and other techniques, with the examples of their application in studying biological systems. Selected experimental problems will be discussed in detail: determination of concentration of substances, monomeric and aggregated states of molecules (pigments, proteins), conformation of molecules (chirality, conformational changes), protein secondary structure and monitoring of specific reactions. On students request other scientific problems will be discussed.
Required reading list:	<ol style="list-style-type: none"> 1. Infrared and Raman Spectroscopy of Biological Materials, Practical Spectroscopy series, vol 24 2. Metody spektroskopowe i ich zastosowanie do identyfikacji związków organicznych (2000) Praca zbiorowa, WNT 3. Selected articles (to be distributed during the workshop)
Prerequisites:	basic physics, chemistry and mathematics
Assessment method:	Presentation / Group work / students may be requested to prepare presentation on chosen scientific problem
Contact person for further information (name, surname, e-mail, phone):	Agnieszka Sujak