Bio medical data analysis - EUR

ECTS	Composante
3 crédits	**Sciences Fondamentales et Appliquées**

En bref

Langue(s) d'enseignement: Anglais

Ouvert aux étudiants en échange: Non

Présentation

Objectifs

The objectives are to master imaging system technologies, the medical data acquisition, their analysis but also the design and deployment of technical and algorithmic solutions. Artificial methods based advanced methodswill notably be developed in given biomedical contexts

Heures d'enseignement

TD	TD	30h

Pré-requis obligatoires

Python, data analysis

Programme détaillé

Part 1 : understanding the main medical and biological imagers (magnetic resonance imaging, microscopy, histology, scanner,) as well as the specific algorithms: cellular image analysis, histopathological data analysis,

polarimetric biological tissue study, biomedical data mining, registration and reconstruction of heterogeneous biomedical data ...

Part 2 : Control of processings and analyses of data collected by connected objects and biomedical sensors tools: semiotic analysis, multisensor context, Design, analyses and deployement of data analysis and machine learning solutions that allow a set of quantitative and/or qualitative characteristics to provide solutions for diagnostic assistance or understanding phenomena