

# Bio medical data analysis - EUR

Composante  
**Sciences Fondamentales et Appliquées**

## 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

Bio medical data analysis                      TD                      30h  
- EUR

### Pré-requis nécessaires

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 deployment 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