

# UE Infectious Diseases (part I)



ECTS  
6 crédits



Composante  
UFR Chimie-  
Biologie



Période de  
l'année  
Toute l'année

- > **Langue(s) d'enseignement:** Anglais
- > **Ouvert aux étudiants en échange:** Oui
- > **Code d'export Apogée:** YAMB8U28

## Présentation

### Description

#### Course outline

#### Lectures:

- 1) Introduction to infectious diseases (1.5 h) CM
- 2) Parasites: bases of the pathogenicity and host / parasite interactions
  - Make yourself at home: remodeling of the host cell by *Plasmodium falciparum* (1.5 h) CM
  - Schistosoma spp (1.5 h) HP
  - Neglected tropical diseases, selected examples:
    - Leishmanioses (3 h) CM
    - Lymphatic filariasis or foodborne trematodiasis or cysticercosis (1.5 h) CM
- 3) Pathogenic bacteria: bases of the pathogenicity and host / bacteria interactions
  - *Borrelia burgdorferi*, the infectious agent of Lyme disease: evasion from the immune system (1.5 h) ASP
  - Pathogenicity of *Vibrio cholerae*, the infectious agent of cholera (1.5 h) ASP

- Gastric ulcer and gastric cancer: the role of *Helicobacter pylori* (1.5 h) ASP
  - Lung diseases: *Pseudomonas aeruginosa* or *Mycobacterium tuberculosis* (1.5 h) CV
  - *Pseudomonas aeruginosa*: model of experimental evolution (1.5 h) CV
  - Bacteria of the digestive tract: Enterohemorrhagic *Escherichia coli*, *Shigellae*, *Listeria monocytogenes* (3 h) TH
  - Life within a vacuole: *Francisella*, *Salmonella*, *Chlamydia* (3 h) CM
- 4) Viruses: bases of the pathogenicity and host cell / virus interactions
- Negative RNA viruses: Influenza virus, Rabies, Measles, Ebola (7.5 h) RR and MJ
  - Virus and cancers (1.5h) PM
  - HIV-1: life cycle, entry and budding, vaccine development (3 h) WW

**Tutorials: 15h**

Analysis of scientific publications to illustrate different aspects of the course

Training to the terminal exam: examples of previous exams

## Heures d'enseignement

UE Infectious Diseases (part I) - CM	CM	34,5h
UE Infectious Diseases (part I) - TD	TD	15h

## Pré-requis recommandés

**Pre-requisites:**

- Basic knowledge in genetics, cell biology, microbiology and biochemistry.
- No specific knowledge is required in virology or in parasitology.

**Période :** Semestre 8

## Compétences visées

**Targeted skills:**

- Knowledge in host-pathogen interactions (models of bacterial, parasitic and viral infections)

- Ability to analyze biological data from published scientific manuscripts.

# Infos pratiques

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## Contacts

Responsable pédagogique

**Corinne Mercier**

✉ [Corinne.Mercier@univ-grenoble-alpes.fr](mailto:Corinne.Mercier@univ-grenoble-alpes.fr)

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## Lieu(x) ville

› Grenoble

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## Campus

› Grenoble - Domaine universitaire