

UE Bacteriology



ECTS
6 crédits



Composante
UFR de Chimie
et de biologie



Période de
l'année
Printemps (janv.
à avril/mai)

Diplômes intégrant cet élément

- Master Biologie - Santé

- > Langue(s) d'enseignement: Anglais
- > Ouvert aux étudiants en échange: Oui

Présentation

Description

Course outline

Thematic of the lectures (25.5h):

- Structure of bacterial chromosomes (3h)
- Regulation of bacterial gene expression and bacterial genomics (sigma factors, sRNA; 6h)
- Bacterial cytoskeleton (1,5h)
- Global regulation of bacterial transcription (DNA topology and stringent response; 9h)
- Bacterial diversity and the new tree of life (3h)
- Plasticity of bacterial genomes (mobile genetic elements; 3h)

Tutorials (18h= 12x1.5h):

Before each session, students have to read one scientific paper on topics related to the lectures and its content (methodologies, results) is then discussed during the 1.5h tutorial.

Format of the course

<i>Activities</i>	<i>Hours</i>	<i>Percentage</i>
<i>Lectures</i>	<i>25.5</i>	<i>30%</i>
<i>Tutorials and discussions</i>	<i>18</i>	<i>20%</i>
<i>Lab sessions</i>		
<i>Estimated work load at home</i>	<i>About 45h</i>	<i>50%</i>
<i>Total</i>	<i>90</i>	<i>100%</i>

Exam requirements

<i>Nature of the exams</i>	<i>Mid-term (Number of hours, % of the final grade)</i>	<i>Final (Number of hours, % of the final grade)</i>	<i>Second session</i>
<i>Written exam</i>		<i>2h, 70%</i>	<i>2h, 70%</i>
<i>Oral exam</i>	<i>30 min, 20%</i>		
<i>Research project</i>			
<i>Synthesis</i>	<i>10%</i>		
<i>Practicals: report</i>			

Oral exam: students have to prepare an oral synthesis of one scientific paper.

Synthesis: students have to prepare a written synthesis of one scientific paper.

Final exam: students have to analyse figures from one or two scientific papers.

Heures d'enseignement

CM	CM	27h
TD	TD	18h

Pré-requis recommandés

Text-book knowledge in bacteriology

Compétences visées

- Targeted skills:

- Knowledge in bacterial genomics, molecular genetics and state-of-the-art genomic technologies.
- Knowledge in bacterial diversity.
- Ability to analyze biological data from published scientific manuscripts.

Infos pratiques

Contacts

Responsable pédagogique

Thomas Hindré

✉ Thomas.Hindre@univ-grenoble-alpes.fr

Lieu(x) ville

➤ Grenoble

Campus

➤ Grenoble - Domaine universitaire