

University of Oum El Bouaghi
Faculty of Exact Sciences and Natural and Life Sciences
Department of Natural and Life Sciences

Level : 1st year TC



Universal history of biological sciences
(HUSB)

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Course plan

Chapter 01 : introduction

Chapter 02 : Prehistoric times

Chapter 03 : Antiquity

Chapter 04 : Middle Age

Chapter 05 : Sixteenth and seventeenth centuries

Chapter 06 : Eighteenth centuries : Darwin

Chapter 07 : Nineteenth century

Chapter 08 : Twentieth century: gene therapy and molecular cloning

Detailed plan

Chapter 01 : introduction

1. Introduction

1.1. Science

- A.** The exact science,
- B.** Physico-chemical and experimental sciences
- C.** The human sciences

1.2. The history of science

1.3. Biology

2. First inventions

- ⇒ Key word definition

Ontogeny ; Palaeography ; Phylogeny ; Paleolithic period ; Neolithic period

Chapter 02 : Préhistoric times

I. Prehistory

A- Paleolithic period

B- Neolithic period

II. Origins of contemporary Biology

A- Prehistoric data related to the animal world

B- Prehistoric data related to the plant world

III. The main types of human

IV. The lifestyle of humans at that time

A. These men look like us

B. Producing food

C. Living in a village

Chapter 03 : The emergence of biology in antiquity

1. Définition of antiquity

2. Oriental antiquity

2.1 Extreme Orient

A. China : (4700-3000 BC)

B. India : (4700-3000 BC)

2.2 Near and Middle Orient

A- Mesopotamia

B- Egypt:

3. Occidental antiquity

A. Greece

- 1- Thales
- 2- Anaximander
- 3- Pythagoras
- 4- Alcmeon
- 5- Hippocrates

B. Rome

- 1- Pliny the ancient
- 2- Gallien

Chapter 04 : Middle Ages

I. Definition of the Middle Ages

II. Biology in the Middle Ages

A- In the Orient

1. Astronomy
2. Geography
3. Optics
4. Mathematics
5. Geometry
6. Chemistry
7. Medicine :
 - ❖ Avicenne (Ibn Sîna) (980,1037)
 - ❖ Ibn Al Nafis (1213-1288)
 - ❖ Avenzoar (Ibn Zuhr) (1073-1162)
 - ❖ Rhazès (Abu Bakr Muhammad ibn Zakariya al-Razi)
 - ❖ Averroès (Abu al-Walid ibn Ruchd, 1126-1198).

B- In the Occident

B.1. The first scientists in Europe

B.2. The rare authors who have contributed to Biology are

Chapter 05 : Sixteenth and seventeenth centuries

I. The Renaissance [16th century: 1450-1600]

1. Sixteenth century (16th)
2. The 17th century

II. Examples of scientists from the 16th and 17th centuries

Chapter 06 : 18th century : Darwin

I. Characteristics of the 18th century

II. Charles Darwin in 1809 to 1882

III. Examples of 18th-century savants

Chapter 07 : Nineteenth century

I. Cell theory

II. Embryology

III. Immunology

IV. Genetics

V. Molecular biology

Chapter 08 : Twentieth century: gene therapy and molecular cloning

I. Gene therapy

II. Molecular cloning