

## **642 ZOO**

### **Advanced Cytology (0+2) 2**

**Cell membranes and their principal functions. Cell organelle's functions and the relationship between them. The cytoskeleton and its role in cell support and transport. Cell development and differentiation and factors affecting its growth. The nucleo cytoplasmic interactions. Properties and types of cell cancer.**

<b>Introduction</b>	<b>1/9/2025</b>
<b>Lecture 1</b>	<b>8/9/2025</b>
<b>Lecture 2</b>	<b>15/9/2025</b>
<b>Lecture 3</b>	<b>22/9/2025</b>
<b>HOMEWORK 1</b>	<b>29/9/2025</b>
<b>Lecture 4</b>	<b>6/10/2025</b>
<b>Lecture 5</b>	<b>13/10/2025</b>
<b>Techniques</b>	<b>20/10/2025</b>
<b>Lecture 6</b>	<b>27/10/2025</b>
<b>Lecture 7</b>	<b>3/11/2025</b>
<b>HOMEWORK 2</b>	<b>10/11/2025</b>
<b>Lecture 8</b>	<b>17/11/2025</b>
<b>Scientific paper</b>	<b>24/11/2025</b>
<b>General discussion</b>	<b>1/12/2025</b>
<b>Final exam</b>	<b>8/12/2025</b>

Scientific paper should include cell cultures and Gel electrophoresis  
and Western blotting  
Or cell cultures and PCR

<b>(points 15) HOMEWORK 1</b>	<b>29/9/2025</b>
<b>(20 points) Techniques</b>	<b>20/10/2025</b>
<b>(15 points) HOMEWORK 2</b>	<b>10/11/2025</b>
<b>(10 points) Scientific paper</b>	<b>24/11/2025</b>

### **Techniques**

#### **GEL ELECTROPHORESIS and WESTERN BLOT**

#### **HOMEWORK 1**

**Ribosomes and Mitochondria (structure, function and diseases).**

#### **HOMEWORK 2**

**DNA replication and errors**