

# 生命科学学院

## 暑期学校课表

1. 暑期学校上课时间自6月19日9:00am开始，选课系统、选课手册中的课程安排与本课表不同之处，课程安排以本课表为准；
2. 选课开放时间为6月19日9:00至6月21日24:00，只有正选，没有预选和预处理，选课系统关闭后，不再进行选、退课操作；
3. 暑期学校课表：

序号	课程名称	上课班级	上课时间	上课地点	任课教师	选课序号
1	生命科学前沿研讨	生科院全体	6月26日—6月30日、 7月3日—7月5日： 上午8:00—9:40am <b>【选此课程同学，务必于6月20日之前系统选课，本课程将根据选课人数决定暑期是否开课】</b>	主楼218	外籍专家： Andrea	0006

## 生命科学前沿研讨课程简介 (Andrea)

**【供参考，具体以任课教师课上通知为准】**

### 1. A brief introduction about yourself.

My name is Andrea, I am Italian and I come from the city of Padua, about 25 km away from Venice. I have a Ph.D. in Molecular and Cell Biology and over the years I have done research in different areas (mitochondria, developmental biology, cellular and molecular biology). I studied at the University of Padua, allegedly the second oldest university in the world (founded in 1222). I worked for many years in the USA and then returned to Italy, where I started using *Drosophila melanogaster* to study the function of genes homologous to human disease genes. I taught general cell biology for many years and many seminar courses, a form of teaching that I particularly enjoy.

### 2. Introduction to this course.

The course is divided into two parts and focuses on the intracellular compartments of the eukaryotic cell (excluding the mitochondria and nucleus), the cytoskeleton, and their functional connections. In the first part (four two-hour lectures), we will look at cell membranes, their properties and functions, and discuss the compartmentalization of the cell by membranes. We will describe the structure and functions of organelles, especially the ER and the Golgi, and discuss how they perform these functions and how materials are sorted and transported between organelles. We will then provide an overview of the major components of the cytoskeleton and their functions, and how the cytoskeleton interacts with intracellular organelles. In the second part (four two-hour lectures), we will address a specific topic that you will not find in textbooks: how the complex shape of the endoplasmic reticulum is determined and regulated, and which molecules and processes are involved. This section will draw on literature. In class, we will study and discuss in detail some seminal publications (4 or 5, depending on time available) that have set the course in this area, and work out what we know and what we do not know. This approach has several advantages for students. It provides an opportunity to introduce other important topics in cell biology research, such as the use of model organisms, genetics, and specific techniques; it allows to illustrate the process of discovery in its many facets; it shows how to approach a scientific question and develop strategies to solve unsolved problems in cell biology using a real example.

3.考核形式: 闭卷, 25 道选择题

4.平时成绩: 期末成绩=0% : 100%