UNIVERSITÀ DI PISA

# ADVANCED CELL BIOLOGY

## MICHELA ORI

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| Anno accademico | 2020/21 |
| CdS | MOLECULAR AND CELLULAR BIOLOGY |
| Codice | 294EE |
| CFU | 6 |

| Moduli | Settore/i | Tipo | Ore | Docente/i |
|---|---|---|---|---|
| CORSO AVANZATO DI BIOLOGIA CELLULARE | BIO/06 | LEZIONI | 48 | MICHELA ORI |

### Learning outcomes

*Knowledge*
The student who completes the course successfully will be able to demonstrate advanced knowledge of the main issues related to cell biology. He or she will acquire knowledge of the fundamental biological function of the eukaryotic cell. Lastly, he or she will be aware of modern approaches for the study on the molecular mechanisms that regulate cell cycle, cell senescence and programmed cell death as well as on the alterations of these functions.

*Assessment criteria of knowledge*
- The student will be assessed on his/her demonstrated ability to discuss the main course contents using the appropriate terminology. - During the oral exam the student must be able to demonstrate his/her knowledge of the course material and be able to discuss the reading matter thoughtfully and with propriety of expression. - The student's ability to explain correctly the main topics presented during the course at the board will be assessed.
Methods:

- Final oral exam

### Teaching methods
Delivery: face to face
Learning activities:

- attending lectures
- participation in seminar
- participation in discussions
- individual study
- Bibliography search

Attendance: Advised
Teaching methods:

- Lectures
- Seminar

### Syllabus
The main objective of the course will be to study fundamental biological function of the eukaryotic cell. The course will be focused on the molecular mechanisms that regulate cell cycle, cell senescence and programmed cell death as well as on the alterations of these functions leading to cancer. Aspects of extracellular matrix structure and function and of cell adhesion and migration will be also approached

### Bibliography
"Molecular Cell Biology" Lodish H., Baltimore D., Berk A., Zipursky S.L., Matsudaira P., Darnell J. IV edizione "Biologia Molecolare della Cellula" Alberts B., Bray D., Lewis J., Raff M., Roberts K., Watson J.D. IV edizione. Zanichelli ed. further bibliography will be indicated.

*Updated: 24/11/2020 11:40*