



The Hebrew University of Jerusalem

Syllabus

Biology of Embryonic Development - 72340

Last update 12-05-2024

HU Credits: 2

Degree/Cycle: 1st degree (Bachelor)

Responsible Department: Life Sciences

Academic year: 0

Semester: 2nd Semester

Teaching Languages: Hebrew

Campus: Mt. Scopus

Course/Module Coordinator: Prof. Nissim Ben-Arie

Coordinator Email: nissim.ben-arie@mail.huji.ac.il

Coordinator Office Hours: email to arrange

Teaching Staff:

Prof. Nissim Ben-Arie

Course/Module description:

An introduction to developmental biology, emphasizing the development of a human embryo

Course/Module aims:

To provide students with no scientific background knowledge and tools to understand processes and mechanisms acting during the development of a cell to an organism

Learning outcomes - On successful completion of this module, students should be able to:

To define Basic terms and concepts in developmental biology. To identify stages in embryogenesis. To describe basic scientific knowledge in the field and the 'real life' and medicine.

Attendance requirements(%):

75

Teaching arrangement and method of instruction: Zoom Lectures and Moodle quizzes

Course/Module Content:

- 1. Generation of the sex cells*
- 2. Fertilization*
- 3. Early embryonic development*
- 4. Embryology and Genetics of twins*
- 5. Regulation of gene expression*
- 6. Fate determination*
- 7. Development of the nervous system*
- 8. Development of the cortex (date of birth)*
- 9. Development of the spinal cord (place of birth)*
- 10. Regenerative medicine: stem cells and Parkinson's disease*

Required Reading:

Sections from papers and textbooks will be provided via Moodle.

Additional Reading Material:

Grading Scheme:

Written / Oral / Practical Exam 100 %

Additional information:

To keep continuous learning, a short and simple Moodle quiz will take place before every class. Passing the quiz &eq; bonus to the final grade!

Passing all &eq; an extra bonus!