

The Hebrew University of Jerusalem

Syllabus

Biology of Embryonic Development - 72340

Last update 27-01-2022

<u>HU Credits:</u> 2

Degree/Cycle: 1st degree (Bachelor)

Responsible Department: Life Sciences

<u>Academic year:</u> 0

Semester: 2nd Semester

<u>Teaching Languages:</u> Hebrew

<u>Campus:</u> 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 expreesion
- 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

<u>Required Reading:</u>

Sections from papers and textbooks will be provided via Moodle.

Additional Reading Material:

<u>Course/Module evaluation:</u> End of year written/oral examination 100 % Presentation 0 % Participation in Tutorials 0 % Project work 0 % Assignments 0 % Reports 0 % Research project 0 % Quizzes 0 % Other 0 %

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!