

# Topics in Geodynamics 206-2-3471

Teacher: Liran Goren, [gorenl@bgu.ac.il](mailto:gorenl@bgu.ac.il), Room 233, Building 58

## Course structure:

Lectures – 2hr/w

## Office hours and communication:

Office hours: Thursdays between 15:30 – 17:30.

Teaching material and messages will be posted on the course website as part the Moodle system.

## Evaluation:

Three quizzes during the semester (45%). Each quiz is 15% of the final grade. The first two quizzes will include questions from the homework assignments.

Homework assignments (55%). Most classes will have homework assignments to be prepared within a week for the next class. Each assignment might include several exercises. Each exercise should be prepared on a separate sheet of paper with the student name, id number and a declaration describing whether the student has solved the exercise independently or via brain storming/consulting with other students. In the latter case, the names of the other students should appear in this declaration. At the beginning of the next class, I will collect a subset of the exercises from the weekly assignment. Students that miss a class should deliver all exercises to my mailbox in advance.

## Literature:

1. Geodynamics. Turcotte and Schubert. Cambridge University Press. 2<sup>nd</sup> edition (or later).
2. The Mechanics of Earthquakes and Faulting. Christopher H. Scholtz. Cambridge University Press. 2<sup>nd</sup> edition.

## Course topics:

1. Stick-slip dynamics, Elasticity and Flexure, Heat transfer, Basic fluid mechanics, Flows in porous media.
2. Introduction to ordinary differential equations and if time allows introduction to partial differential equations.