

The Department of Mathematics

2018–19–B term

Course Name Introduction to Complex Dynamics

Course Number 201.2.5431

Course web page

<https://www.math.bgu.ac.il/en/teaching/spring2019/courses/introduction-to-complex-dynamics-29cc6a83-3054-4420-b527-cb64f1c5648a>

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Office Hours <https://www.math.bgu.ac.il/en/teaching/hours>

Abstract

Requirements and grading¹

Course topics

- .1 Normal families and rational maps.
- .2 The Fatou and Julia sets.
- .3 Properties of the Julia set.
- .4 The structure of the Fatou set.
- .5 Periodic points.
- .6 Forward invariant components.
- .7 The no wandering domains theorem.
- .8 Commuting and semiconjugate rational functions.
- .9 Introduction to arithmetic dynamics.

¹Information may change during the first two weeks of the term. Please consult the webpage for updates