The Department of Mathematics
2021–22–A term

**Course Name**  Expander graphs and expansion in groups

**Course Number**  201.2.0411


**Lecturer**  Dr. Izhar Oppenheim, <izharo@bgu.ac.il>, Office 316

**Office Hours**  [https://www.math.bgu.ac.il/en/teaching/hours](https://www.math.bgu.ac.il/en/teaching/hours)

**Abstract**

**Requirements and grading**

**Course topics**

1. Expander graphs and their applications — Equivalent definitions, Mixing Lemma, Alon–Boppana Theorem, Applications, Constructions

2. Kazhdan Property (T) - group representations (short intro.), Cayley and Schrier graphs, Property (T) — definition and properties, examples, construction of expander graphs via property (T)

3. Additional topics (as time allows)

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