

QFT II – Gauge theory – 118133 (Shlomo Razamat).

- **Contact information:** – Room 707 (Lidow building seventh floor), email: razamat@physics.technion.ac.il.

- **Office hours:** – Please drop by between 9:00 – 18:00, email first for better success.

- **Grading:** – 55% Home exercises (approximately one exercise every two weeks, about five per course). To get full grade not all problems need to be solved. 45% Presentation (about 45 min-1 hour) of one of the advanced topics we will not get to cover in the course.

- **Syllabus:** – Gauge theories, classical aspects, quantization, BRST symmetry, Effective field theory, Renormalization of gauge theories, Renormalization group, Spontaneous symmetry breaking, Anomalies.

- **Assumptions:** – Quantum mechanics, Relativity, Good familiarity with QFT I.

- **Material:** – Primary source:

- S. Weinberg, QFT volume II

More references:

- Peskin, Schroeder, QFT

- Srednicki, QFT

- Ryder, QFT

- Ramond, Primer to QFT