ATOC 513. WAVES AND STABILITY.

Credits: 3

Offered by: Atmospheric & Oceanic Sciences (Faculty of Science)

Terms offered: Winter 2026

View offerings for Winter 2026 in Visual Schedule Builder.

Description

Description of the principal wave types and instability mechanisms of geophysical fluid dynamics. Geostrophic adjustment, wave dispersion, the WKBJ approximation. Wave types considered include (internal) inertia-gravity waves, planetary Rossby waves, and the equatorial and coastal wave guides. Instabilities considered include inertial, symmetric, barotropic, baroclinic, and Kelvin-Helmholtz instability.

- Winter
- 3 hours lecture
- Prerequisite (Undergraduate): MATH 314, MATH 315, or permission of instructor