

**Oc 674 / Spring 2016
Introduction to Turbulence**

Instructor: Jim Moum, COAS x 72553; moum@coas.oregonstate.edu

Text: A First Course in Turbulence by H. Tennekes and J.L. Lumley
MIT Press, 1972

Course Evaluation: Assignments - 50% and Final/midterm – 25% each

Course website: <http://mixing.coas.oregonstate.edu/people/jmoum/turbulence.php>

SCHEDULE:

MONDAY

WEDNESDAY

March 28
Introduction/Ch 1

March 30
Kinematics of turbulence/Ch 2,3

April 4
INSTRUCTOR AT SEA

April 6
INSTRUCTOR AT SEA

April 11
INSTRUCTOR AT SEA

April 13
INSTRUCTOR AT SEA

April 18
Turbulence video (Stewart)
Energetics of turbulence/Ch 3

April 20
Energetics of turbulence /Ch 3

April 25
Vorticity Dynamics/Chapt. 3

April 27
Vorticity Dynamics /Ch 3
Effects of Buoyancy /Chapt. 3,4

May 2
Effects of Buoyancy /Chapt. 3,4

May 4
Jets&Wakes/Chapt. 4

May 9
Jets&Wakes/Chapt. 4

May 11
Geophysical Flows/Chapt. 4

May 16
Wall Flows/Chapt. 5
(MIDTERM-take home exam)

May 18
Wall Flows/Chapt. 5

May 23
Turbulent Dispersion/Chapt 7

May 25
Spectral Dynamics/Chapt 8

May 30
Memorial Day

June 1
Spectral Dynamics/Chapt 8