

## CORE COURSES

<b>Course Number</b>	<b>Course Name</b>	<b>Course Description</b>	<b>Credit</b>
Meteor 201	Synoptic Meteorology	The general circulation; the structure and behavior of weather systems; the synoptic chart and methods of analysis; development, displacement and intensification of weather systems; prognosis	3 units
Meteor 202	Synoptic Meteorology Practicum	Practical work at the Weather Forecasting Office	3 units
Meteor 210	Geophysical Fluid Dynamics	Kinematics of fluid flow; equations of motion in rotating fluid; vorticity, circulation and potential vorticity; Reynolds equation, stresses; Cartesian tensors; geostrophic flows	3 units
Meteor 213	Climatology	Theory of climate; relative transfer; energy balance; feedback systems; photochemistry of climatologically-active gases; climate variability and change; data analysis	3 units
Meteor 221	Physical Meteorology	Thermodynamics of the atmosphere; instability and convection; cloud and precipitation physics; radar applications; solar and terrestrial radiation; atmospheric electricity; optics	3 units
Meteor 232	Dynamic Meteorology	The equation of motion in vector form; horizontal frictionless flow; circulation and vorticity; the mechanics of pressure change; pressure tendency equation; vertical motions in the atmosphere	3 units

## ELECTIVE COURSES

<b>Course Number</b>	<b>Course Name</b>	<b>Course Description</b>	<b>Credit</b>
Meteor 203	Methods of Analytical Meteorology and Oceanography	Mathematical and numerical methods in meteorology and oceanography; principles of statistical analysis; computer programming	3 units

Meteor 205	Atmospheric Science For Teachers	A qualitative course in meteorology designed for science teachers	3 units
Meteor 233	Advanced Dynamic Meteorology	Wave solutions to the linearized equations of atmospheric flow; sound gravity and Rossby waves; linear stability problems; barotropic and baroclinic instabilities; selected topics	3 units
Meteor 234	Numerical Weather Prediction	Mathematical models for atmospheric prognosis and diagnosis; gridpoint and spectral representations; objective analysis	3 units
Meteor 241	Tropical Meteorology	Low latitude dynamics; survey of tropical disturbances; development, structure and movement of tropical cyclones	3 units
Meteor 225	Cloud & Precipitation Physics	Condensation processes; theories of precipitation formation.	3 units
Meteor 261	Agrometeorology		3 units
Meteor 271	Hydrometeorology		3 units
Meteor 283	Air Pollution Meteorology	Atmospheric disturbances; diffusion theory; estimation of diffusion from meteorological data; air pollution models	3 units
Meteor 297	Special Topics		3 units
Meteor 321	Research Problems In Physical Meteorology		3 units
Meteor 331	Research Problems In Dynamic Meteorology		3 units
Meteor 341	Research Problems In Tropical Meteorology		3 units

## THESIS

Course Number	Course Name	Course Description	Credit
Meteor 296	Graduate Seminar		1 unit
Meteor 300	Master's Thesis		6 units
Meteor 396	Research Seminar		1 unit
Meteor 399	Independent Doctoral Study		3 units
Meteor 400	Ph.D. Dissertation		12 units