Atmospheric Chemistry

Description:

This minor will provide the students with a general background in Meteorology, as offered by the lower level required courses, and a background on issues in Atmospheric Chemistry. This minor track is intended for students who might pursue careers where background in Atmospheric Chemistry is needed, such as Air Pollution, Atmospheric Chemistry, and environmental issues. It is aimed at students that might consider graduate work in Atmospheric Chemistry, or prepare them for the very favorable job market in the Washington area, where a background in Meteorology can be an important asset.

Students attempting this minor will need a strong background in Mathematics, Physics and Chemistry at the level of MATH 240 or 461, PHYS 270 and PHYS 271; CHEM 481 (preferred) or CHEM 103, which are prerequisites for the required courses. Students interested in taking this minor program should contact the undergraduate advisor in the Department of Meteorology for advisement. This minor is not open to students who major in Physical Sciences with a concentration in Meteorology, or who major in Physics within the Meteorology Physics area of concentration.

The student must choose two courses from:

- METO 123 Global Change (3)
- METO 200 Weather and Climate (3)
- Any other 400 level courses offered below as electives

The following two courses are required:

- METO 431 Meteorology for Scientists and Engineers I (3)
- METO 434 Air Pollution (3)

One additional elective from

- CHEM 474 (Environmental Chemistry)
- GEOL 471 (Geochemical Methods of Analysis)
- Any 400 level courses offered in the Department of Meteorology approved by the Undergraduate Director.
- Courses offered by the Department of Geology and Geography, such as:
  - GEOL 437 Global Climate Change: Past and Present (3)
  - GEOL 452 Watershed and Wetland Hydrology (3)
  - GEOG 446 Applied Climatology (3)
  - GEOG 447 Advanced Biogeography (3)
  - GEOG 472 Remote Sensing (3)

A total of 15 credits is required. All courses presented for the minor must be passed with a grade of “C” or better.
Oversight and Record Keeping:

Oversight of this minor program will be through the normal academic processes of the Department of Meteorology. The department’s Undergraduate Director will be responsible for ensuring that students are properly advised and that records are appropriately kept.

Prerequisites:

Although required for the program, MATH 240 or 461, PHYS 270 and PHYS 271, CHEM 103 are not included as specific minor requirements because they are likely already to be parts of the major requirements for students who will be interested in this minor.