

**Typical Schedule:**  
**M.S. in Environmental Engg. or M.S. in Environmental Engineering Science,**  
**with a focus on air quality science and engineering,**  
**for students advised by R. Honrath**

## Requirements

- Coursework credits: 20–22 (5000-level  $\geq 12$ ).
- Research and thesis (register for at least 10 research credits).

Each final schedule and thesis topic is agreed upon by the student and advisor.

## Coursework

1. Mass balance, reactor analysis, kinetics, and mass transfer  
CE5501 Environmental Process Engineering (fall) (3)
2. Environmental chemistry  
CE4501 Environmental Engineering Chemical Processes (fall) (3)
3. Data analysis and statistics  
CE5243 Probabilistic Analysis and Reliability (fall) (3), or  
MA3730 Statistical methods (3)
4. Numerical methods; transport modeling  
GE5800 Mathematical Modeling of Earth Systems (spring) (3)
- 5–6. Atmospheric Science and Engineering CE5505 Atmospheric Chemistry (spring) (3), and  
One of:  
PH4640 Atmospheric Physics (fall) (3), or  
CE5xxx Atmospheric Boundary Layer Meteorology (spring) (3)
7. Non-atmospheric Environmental Engineering course: at least one of the following.  
CE5509CH5509 Environmental Organic Chemistry  
CE5508 Biogeochemical Processes  
CE5504 Surface Water Quality Modeling  
CE5507 Sorption and Biological Processes  
CE5502 Biological Treatment Processes
8. Seminars  
CE599x Environmental Engineering seminar (register once, attend always)  
UN4000 Remote Sensing Seminar (1)

## Courses for students who have taken some of the above, and for doctoral students

CH4210 Instrumental Analysis  
MA4710 Regression Analysis  
CE4504 Air Quality Engineering and Science (fall) (3)  
GE4250 Remote Sensing Fundamentals (spring) (3)  
FW4540 Remote sensing of the environment (fall) (3)