**2017-2018 ATMOSPHERIC CHEMISTRY COURSES**

***Courses that strongly recommended for all atmospheric students*** (F = Fall, W = Winter, S = Spring, Sm = Summer)

| | |
|---|---|
| Chemistry 200 | Conduct of Research (F) |
| Chemistry 213 | Chemical Kinetics (S) |
| Chemistry 245A | Gas-Phase Atmospheric Chemistry (F) |
| Chemistry 231A | Fundamentals of Quantum Mechanics (F) |
| Chemistry 232A | Thermodynamics & Statistical Mechanics (W) |
| Chemistry 241 | Current Issues Related to Trop & Strat Proc (S) (*not offered in 2017-18*) |
| Chemistry 245B | Multi-Phase Atmospheric Chemistry (W) |
| Chemistry 245C | Special Topics in Atmospheric Chemistry (W) |

***Elective courses***

| | |
|---|---|
| Chemistry 230 | Classical Mechanics & Electromagnetic Theory (F) |
| Chemistry 231B | Applications of Quantum Mechanics (W) |
| Chemistry 231C | Molecular Spectroscopy (S) |
| Chemistry 232B | Advanced Topics in Statistical Mechanics (S) |
| Chemistry 233 | Nuclear and Radiochemistry (F) |
| Chemistry 243 | Advanced Instrumental Analysis (W) (*will be offered in 2018-19*) |
| Chemistry 242 | Applied Optics (S) (*taught by Physics*) |
| Chemistry 244 | Radiation Detection (S) |
| Chemistry 246 | Separations (F) |
| Chemistry 248 | Electrochemistry (W) (*will be offered in 2018-19*) |
| Chemistry 249 | Analytical Spectroscopy (W) |
| Chemistry 263 | Materials Chemistry (W) |

***Elective ESS courses***

| | |
|---|---|
| ESS 202 | Climate Change (TBD) |
| ESS 226 | Land Surface Processes (TBD) |
| ESS 240 | Atmospheric Chemistry and Physics (F) |
| ESS 262 | Global Biogeochemical Cycles (TBD) |

**SAMPLE 1st YEAR SCHEDULE: ATMOSPHERIC CHEMISTRY**

Chem 200 and 290 are required for all first-year students. Chem 290 is worth 1 credit hour; most other classes are worth 4 credit hours. Hours for 280 (research once in a group), 291 (research seminar once in a group), 399 (teaching) vary. Your total should be between 12-16 credit hours.

| FALL 2017 | WINTER 2018 | SPRING 2018 |
|---|---|---|
| 231A: Fundamentals of Quantum Mechanics (Martin) | 232A: Thermodynamics and Statistical Mechanics (Martens) | 213: Chemical Kinetics (Smith) |
| 245A: Gas-Phase Atmospheric Chemistry (Shiraiwa) | 245B: Multi-Phase Atmospheric Chemistry (Finlaysson-Pitts) | 244: Radiation Detection (Nilsson/Miller) |
| ESS 240: Atmospheric Chemistry and Physics (Kim) | 245C: Special Topics in Atmospheric Chemistry (Abbatt) | |
| 200: Conduct of Research (Nizkorodov) | **Complete rotations; join a group** | 280: Start research in your group |
| 290: P-Chem seminar | 290: P-Chem seminar | 290: P-Chem seminar |
| 399: Teaching | 399: Teaching | 399: Teaching |
| *Other courses to consider: 230* | *Other courses to consider: 231B, 263, ESS courses* | *Other courses to consider: 242, 232B, ESS courses* |