

1. Global biogeochemical cycling of carbon, nitrogen, or sulfur. Choose one species.
2. Atmospheric measurements: current status and future directions. Should cover both meteorological and chemical measurements
3. Atmospheric modeling: current techniques and future directions. Choose one of meteorological, climate and atmospheric chemistry models.
4. Stratospheric ozone hole: evidence, mechanisms and future
5. Tropospheric oxidants: Recent trend. Choose HOx or Ox.
6. Air pollution: evidence, causes and mechanisms. Choose ozone or aerosols
7. Air pollution – climate change interaction
8. Air pollution: regional and global transport. Should include observation & modeling studies
9. Air pollution control and cost-benefit analysis
10. Climate change in the industrial era: history, anthropogenic contribution, and future projections
11. Climate change in the industrial era : causes and mechanisms
12. Climate change in the industrial era : impacts and mitigation solutions
13. Renewable energy: current status, challenges and future potential. Choose solar or wind energy
14. Emission estimate. Should include bottom-up and top-down estimates. Choose one of NOx, VOC, CO, SO₂, NH₃, and BC/OC. BC and OC should be analyzed together
15. International trade: impacts on global atmospheric environment and climate
16. Satellite remote sensing: capability, limitation and future prospects

Note: A review is NOT just a compilation of what people have done. You must have your own understanding of the topic, and construct the paper/ppt using findings from existing studies.

More on Term Paper and Presentation

- Multiple topics for choice; first come first serve
- 2-3 students form a group working on one topic
- Each presentation takes 20-30 mins plus 10-20 mins for questions/discussions; will spend 2-3 weeks at the end of the semester for presentation
- Topics will be finalized by October
- **Deadline for team formation & topic selection: Nov 02**
- **Deadline for paper & ppt submission: Dec 07**
- Structure of paper/ppt: introduction/background, main content, conclusion/discussions (see the example by Daniel Jacob !)
- Scoring of paper/ppt: scientific content, completeness, clearness, timing, group collaboration, taking questions; **please explain contributions of each group member, for separate scoring, at the beginning of your ppts and papers!**
- Title of paper & ppt: **GECC第X题_姓名...**
- **Consult with me BEFORE submission deadline if you have any concerns about plagiarism.**