

1. Global biogeochemical cycling of carbon, nitrogen, or sulfur. Choose one element.
2. Atmospheric measurements: current status and future directions. Could cover meteorological measurements or chemical measurements. Either one or multiple parameters is fine.
3. Atmospheric modeling: current techniques and future directions. Choose one of meteorological, climate or atmospheric chemistry models.
4. Satellite remote sensing: capability, limitation and future prospects
5. Stratospheric ozone hole: evidence, mechanisms and future
6. Tropospheric oxidants: Recent trend. Choose HOx or Ox.
7. Air pollution: evidence, causes and mechanisms. Choose ozone or aerosols
8. Air pollution – climate change interaction
9. Air pollution: regional and global transport. Should include observation & modeling studies
10. Air pollution control and cost-benefit analysis
11. Climate change in the industrial era: history, anthropogenic contribution, and future projections
12. Climate change in the industrial era: causes and mechanisms
13. Climate change in the industrial era: impacts, adaptation and mitigation
14. Emission estimate: bottom-up and/or top-down methods. Choose one of NO_x, VOC, CO, SO₂, NH₃, and BC/OC. BC and OC should be analyzed together
15. Open fires and their impacts on health and/or climate
16. International trade: impacts on atmospheric environment, climate or ecosystems. Choose one aspect
17. Renewable energy: current status, challenges and future potential. Choose solar or wind energy
18. Carbon neutrality: pathways, impacts, costs and benefits
19. Environment nexus (co-benefits and tradeoffs)
20. Game theory of sustainable development

You can also choose any other topic related to this course but not in the above list. Consult with me first!

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 data/figures/tables from existing studies.

More on Term Paper and Presentation

- Each group (**2-3 students**) works on a topic or project. **Discuss with me – very important!**
- Each presentation takes 25 mins, plus 25 mins for Q&A; will spend 2 weeks at the end of the semester for presentation
- **Deadline for topic selection: October 29**
- **Deadline for paper & ppt submission: December 10**
- Structure of paper/ppt: introduction/background, main content, conclusion/discussion
- Scoring of paper/ppt: scientific content, clearness, novelty, 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+姓名...**
- **Consult with me BEFORE submission deadline if you have any concerns about plagiarism.**