

**TIMETABLE ARRANGEMENT:** Annual; 2nd Semester

**CREDITS:** 6

**COURSE TEACHER(S):** Dr Jinbao LI

**ASSESSMENT:**

| EXAMINATION 60 %  | COURSEWORK 40 %  |
|---|--|
| <ul style="list-style-type: none"><li>• 2 hours</li></ul> | <ul style="list-style-type: none"><li>• 4 individual bi-weekly essays</li><li>• 1 individual project</li></ul> |

**OBJECTIVES:**

This course is primarily concerned with the Earth's climatic conditions and their interactions with the environment and human society over space and time.

**COURSE SYNOPSIS:**

This course examines climatic conditions on Earth and their interaction with the environment and human society. It will focus on climate change, since to deal sensibly with questions raised concerning future climatic conditions and evaluation of their impact on environment and society, it is essential to understand the nature of the climate system and what causes it to change. In particular, the impact of human activities on the climate system will be set in perspective alongside the background of natural changes in the climate of our planet. Issues associated with societal decisions taken today and their potential impact on climate over the next century will also be discussed.

**LECTURE TOPICS:**

- The climate system and its operation
- The greenhouse effect and anthropogenic climate change
- The effects of climate change on the natural environment

**RECOMMENDED READING LIST:**

- IPCC, (2013). Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
- Kump, L. R., Kasting, J. F., & Crane, R., (2010). The Earth System: An Introduction to Earth Systems Science, 3rd edition. Prentice-Hall: Upper Saddle River, New Jersey.
- Burroughs, W. J. (2007). Climate Change: A Multidisciplinary Approach, 2nd edition. Cambridge University Press, Cambridge, United Kingdom.

| Course Learning Outcomes (CLOs)<br>After completing this course, students would be able to: |   | Alignment with Programme Learning Outcomes (PLOs)* |   |   |   |   |   | Course Assessment Methods        |
|---|---|--|---|---|---|---|---|----------------------------------|
|   |   | 1  | 2 | 3 | 4 | 5 | 6 |                                  |
| 1   | understand the climate system and climate change                                  | ✓  | ✓ |   | ✓ |   |   | Bi-weekly essays, project & exam |
| 2   | acquire perspectives on external and internal forcing of climate change           | ✓  | ✓ |   |   |   |   | Bi-weekly essays, project & exam |
| 3   | understand the general effects of climate change on the environment               | ✓  | ✓ |   |   |   |   | Bi-weekly essays, project & exam |
| 4   | familiarise with a number of key issues and challenges in climate change research | ✓  |   |   | ✓ |   |   | Bi-weekly essays, project & exam |
| 5   | acquire critical reading and writing skills                                       | ✓  | ✓ |   | ✓ |   |   | Bi-weekly essays, project & exam |
| 6   | think critically about human impact on climate system                             | ✓  | ✓ |   | ✓ | ✓ | ✓ | Bi-weekly essays, project & exam |
| 7   | think critically about climate change and its consequences                        | ✓  | ✓ |   | ✓ | ✓ | ✓ | Bi-weekly essays, project & exam |
| 8   | work independently toward discovering and finalizing a research project           |  |   |   |   |   | ✓ | Project                          |

#### \*Geography Major Programme Learning Outcomes (PLOs)

In order to meet the demands and challenges in this dynamic and ever-changing world, the Department has designed a series of well-structured and contemporary courses to cater to the different interests of students. Its courses are designed to align with the University's educational aims which hope to nurture future generations not only with a critical and intellectual mindset, but also with a passion to contribute to society in general.

After completing the programme, Geography Major students should be able to:

- PLO1** critically analyse the geographical aspects of the relationship between people and the natural environment;
- PLO2** demonstrate and develop an understanding of how these relationships have changed with space and over time;
- PLO3** identify, collect and utilize primary and secondary data to investigate and analyse the issues and problems facing people, places and society;
- PLO4** integrate, evaluate and communicate information from a variety of geographical and other sources;
- PLO5** participate in promoting social, economic and environmental sustainability at the local, regional and global scales; and
- PLO6** effectively apply a range of transferable skills in academic, professional and social settings.

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