南方科技大学

教 学 日 历

Class Calendar

课程名称 _气候变化风险分析与管理_
Course title：Climate Change Risk Analysis and Management

授课学期 __2024__ 年 ____秋_____ 季学期
Class offered in 2024 AY Autumn Semester

任课教师 _____田展_____
Instructor Zhan Tian

适用专业 _环境、地空、海洋、管理___
Majors open to Environment Science, Geospace, Oceanography, and Management

2024 年 Y 4 月 M 12 日 D

2024 年 秋 季学期教学日历

Semester AY Class Calendar

注 Note：●—重点内容 Key information；★—课堂讲授内容 Lecturing contents；☆—学生自学内容 self-study contents for students；※—学生选读内容 optional contents for students

课程名称 Course title		气候变化风险分析与管理/ Climate Change Risk Analysis and Management		授课学时 Credit hours	3
授课专业 Majors open to		环境、地空、海洋、管理 Environment Science, Geospace, Oceanography, and Management			
教　　材 Textbooks		《气候变化》丁一汇 2010 气象出版社；《气候变化灾害风险评估》姜彤等；2024，高等教育出版深 Catastrophe Risk Modelling；Arnaud MIGNAN；2024，In Press			
序号 No.	授课日期 Class session date	授课学时 Credit hours	授课方式 Instruction mode	授课内容 Class content	教材页数 Which textbook pages are covered in the session
1	9.9	2	课堂教学 /Lecture	课程简介及气候变化基本概念 /Course Introduction and Basic Concepts of Climate Change	《气候变化》丁一汇 2010 气象出版社
2	9.11；9.18；	4	课堂教学 /Lecture	气候变化的原因和趋势分析/ Analysis of the Causes and Trends of Climate Change	《气候变化》丁一汇 2010 气象出版社
3	9.23；9.25；	4	课堂教学 /Lecture	气候变化最新科学问题进展/ Recent Scientific Advances in Climate Change Issues	《气候变化》丁一汇 2010 气象出版社

4	10.9； 10.14；	4	课堂教学 /Lecture	气候模式进展与应用/ Advances and Applications of Climate Models	《气候变化灾害风险评估》姜彤等；2024，高等教育出版
5	10.16； 10.23；	4	课堂教学 /Lecture	极端气象事件成因与机理/ Causes and Mechanisms of Extreme Weather Events	《气候变化灾害风险评估》姜彤等；2024，高等教育出版
6	10.28； 10.30；	4	课堂教学 /Lecture	风险建模的基本知识，包括理论和实践方面/ Fundamentals of Risk Modeling, Including Theoretical and Practical Aspects	Catastrophe Risk Modelling；Arnaud MIGNAN；2024，In Press
7	11.6； 11.6；	4	课堂教学 /Lecture	气候变化对农业风险分析与管理/ Climate Change Impact on Agricultural Risk Analysis and Management	《气候变化灾害风险评估》姜彤等；2024，高等教育出版
8	11.11； 11.13	4	课堂教学 /Lecture	气候变化对城市洪涝风险分析与管理/ Climate Change Impact on Urban Flood Risk Analysis and Management	《气候变化灾害风险评估》姜彤等；2024，高等教育出版
9	11.20； 11.25	4	课堂教学 /Lecture	气候变化对生态系统分析与管理/ Climate Change	《气候变化灾害风险评估》姜彤等；2024，高等教育出版

				Impact on Ecosystem Analysis and Management	
10	11.27	2	翻转教学 Flipped Classroom Teaching	前沿问题研讨 Frontier Issues Seminar	
任课教师 Instructor		田展		主管研究生副系主任(签字) Associate dept. dean of graduate affairs (signature)	

注：讲课过程中遇到节假日，授课日期顺延。

Note: If the class coincides with national holidays, the class will be postponed accordingly.

说　明

Note

1、教学日历（也称授课计划）按教学大纲要求，根据实际授课学时而制定，应列出每次上课（2学时）的内容、进度、方式。

The Class Calendar (or referred to as the Instruction Plan) should be developed according to the course syllabus and the planned instruction progress. Contents, progress, and the instruction mode of every class session(2 credit hours) should be specified on this calendar.

2、授课方式包括理论、实验、习题、讨论、上机等。

Instruction modes may contain lecture, lab, discussion, quiz, computer lab, etc.

3、教学日历由任课教师或教学团队制定，公共课的教学日历应统一制定。

The class calendar should be developed by the course instructor(s).

4、授课教师应按教学日历进行教学。

The instructor should arrange the class sessions according to the calendar.

5、教学日历须在授课前交开课单位一份保存，以备检查，至少保存5年。

A copy of the calendar should be filed to the course offering unit. For review purposes, the copy should be kept in record for no less than five years.

课程大纲
COURSE SYLLABUS

1.	**课程代码/名称** **Course Code/Title**	气候变化风险分析与管理 Climate Change Risk Analysis and Management
2.	**课程性质** **Compulsory/Elective**	专业选修 Major Elective Courses
3.	**开课单位** **Offering Dept.**	环境科学与工程学院 School of Environmental Science and Engineering
4.	**课程学分/学时** **Course Credit/Hours**	3/48
5.	**授课语言** **Teaching Language**	中文 Chinese
6.	**授课教师** **Instructor(s)**	田展
7.	**开课学期** **Semester**	秋季 Autumn
8.	**是否面向本科生开放** **Open to undergraduates or not**	否 NO
9.	**先修要求** **Pre-requisites**	（如面向本科生开放，请注明区分内容。 If the course is open to undergraduates, please indicate the difference.） 否 NO

10. 教学目标
Course Objectives

（如面向本科生开放，请注明区分内容。 If the course is open to undergraduates, please indicate the difference.）
通过课堂讲授，让学生了解气候变化和极端气候事件（例如热浪、干旱、洪水、台风）的成因和机理，认识气候变化对农业、生态和城市的风向，掌握风险建模的基本手段和科学方法。
Through classroom lectures, students will learn about the causes and mechanisms of climate change and extreme weather events (such as heatwaves, droughts, floods, and typhoons), understand the effects of climate change on agriculture, ecology, and urban environments, and acquire basic skills and scientific methods in risk modelling.

11. 教学方法
Teaching Methods

（如面向本科生开放，请注明区分内容。 If the course is open to undergraduates, please indicate the difference.）
本课程拟采用课堂授课和翻转教学等教学方法
This course plans to use teaching methods such as classroom lectures and flipped classroom approaches

12. 教学内容
Course Contents
（如面向本科生开放，请注明区分内容。 If the course is open to undergraduates, please indicate the difference.）

Section 1	课程简介及气候变化基本概念/Course Introduction and Basic Concepts of Climate Change
Section 2	气候变化的原因和趋势分析/ Analysis of the Causes and Trends of Climate Change
Section 3	气候变化最新科学问题进展/ Recent Scientific Advances in Climate Change Issues
Section 4	气候模式进展与应用/ Advances and Applications of Climate Models

	Section 5	极端气象事件成因与机理/ Causes and Mechanisms of Extreme Weather Events
	Section 6	风险建模的基本知识，包括理论和实践方面/ Fundamentals of Risk Modeling, Including Theoretical and Practical Aspects
	Section 7	气候变化对农业风险分析与管理/ Climate Change Impact on Agricultural Risk Analysis and Management
	Section 8	气候变化对城市洪涝风险分析与管理/ Climate Change Impact on Urban Flood Risk Analysis and Management
	Section 9	气候变化对生态系统分析与管理/Climate Change Impact on Ecosystem Analysis and Management
	Section 10	翻转课堂教学/ Flipped Classroom Teaching
	……	

13. 课程考核
Course Assessment

（①考核形式 Form of examination；②.分数构成 grading policy；③如面向本科生开放，请注明区分内容。 If the course is open to undergraduates, please indicate the difference.）
考察课

14. 教材及其它参考资料
Textbook and Supplementary Readings

《气候变化》丁一汇 2010 气象出版社；
《气候变化灾害风险评估》姜彤等；2024，高等教育出版
Catastrophe Risk Modelling；Arnaud MIGNAN；2024，In Press