**Climate Change and Health  
Course Syllabus**

**Semester-long Lecture Series (14 Weeks)**

**Language:** English (optional – can be tailored)

**Level:** Graduate / Advanced undergraduate

**Course Length:** 1 semester (14 weeks)

**Format:** Weekly lectures (1x90 min or 2x45 min)

**Course Description**

This course explores the multidimensional relationship between climate change and human health. Students will examine how rising temperatures, changing ecosystems, and extreme weather events affect various physiological systems, disease patterns, and health care delivery. Emphasis is placed on evidence-based understanding and critical thinking around climate-related health risks and responses.

**Learning Outcomes**

By the end of this course, students will be able to:

* Identify and explain the physiological, mental and public health effects of climate change.
* Analyze the influence of climate change on various diseases and health conditions.
* Understand how vulnerable populations are disproportionately affected.
* Evaluate current and future challenges in clinical practice and health systems.
* Explore mitigation and adaptation strategies, including sustainable healthcare practices.

**Weekly Topics**

| **Week** | **Topic** |
| --- | --- |
| 1 | Climate change and effects – general introduction |
| 2 | Thermoregulation, effects of heat, heatstroke |
| 3 | Impact of climate change on cardiovascular diseases (CVD) |
| 4 | Impact of climate change on metabolic disorders |
| 5 | Temperature effects on kidney function and renal diseases |
| 6 | Impact on pregnancy and reproductive health |
| 7 | Mental health, occupational stress, and climate |
| 8 | Pharmacological aspects and medication in a changing climate |
| 9 | Vector-borne diseases and other infections |
| 10 | Waterborne diseases, toxic algae, balneology |
| 11 | Allergy, dermatological effects |
| 12 | Cancer, fungal diseases, mycotoxins |
| 13 | Wildfires, droughts, extreme weather events |
| 14 | Greening healthcare, adaptation, inequalities |

**Assessment** *(optional – can be tailored)*

Class participation and discussions: 20%

Midterm quiz or case reflection: 30%

Final assignment/presentation: 50%

**Literature**

Find at the and of the learning materials.