

Soil Biology and Global Changes



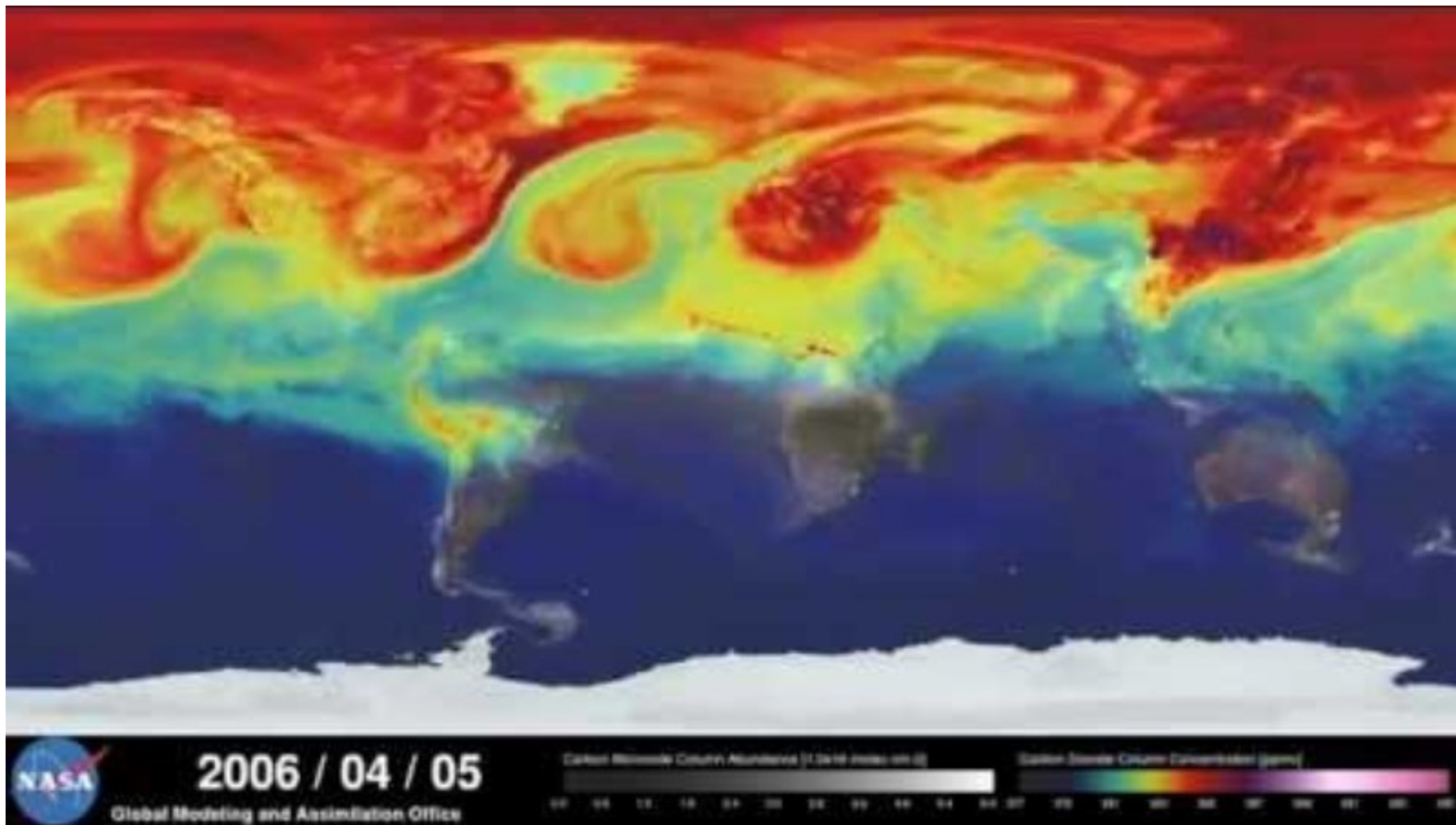
ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

DEPARTMENT
OF BIOLOGICAL, GEOLOGICAL,
AND ENVIRONMENTAL
SCIENCES

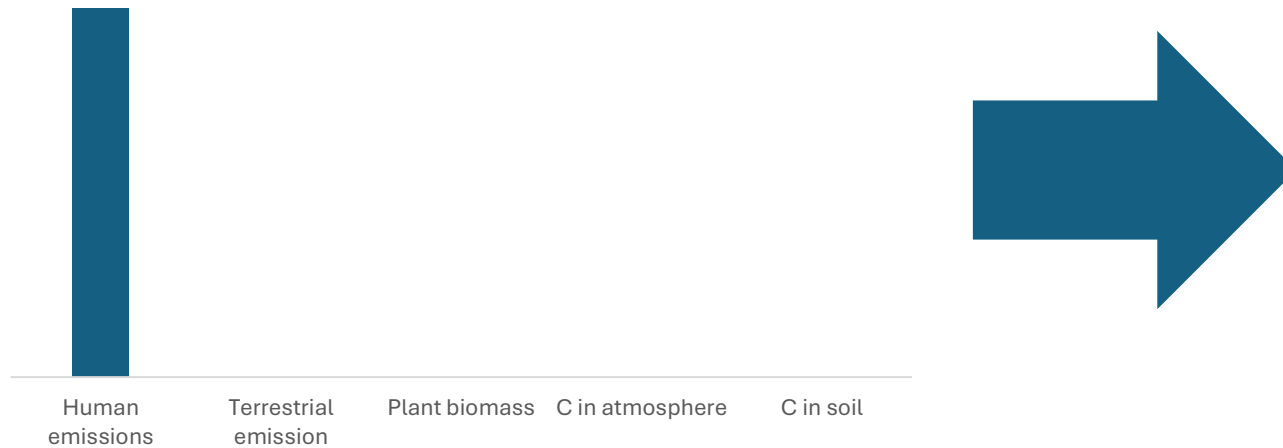
Alberto Canarini

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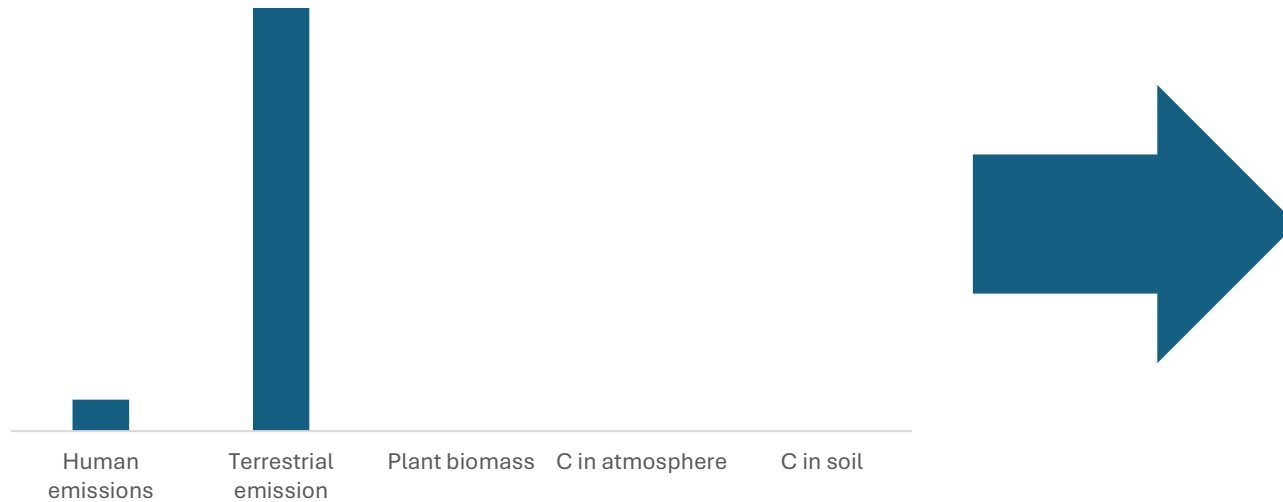


Why soil?



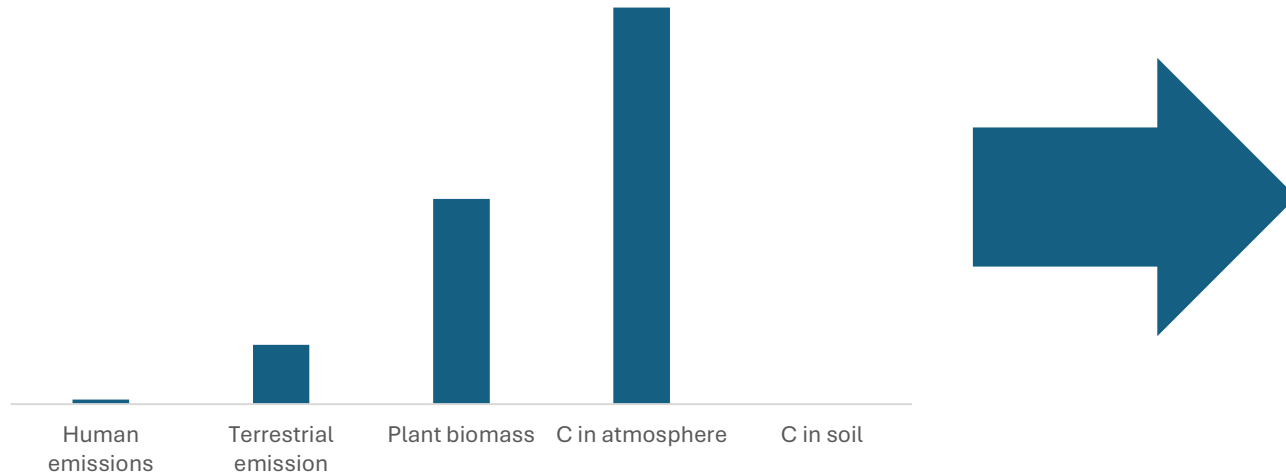
This course explores soil systems as critical drivers of global environmental processes.

Why soil?



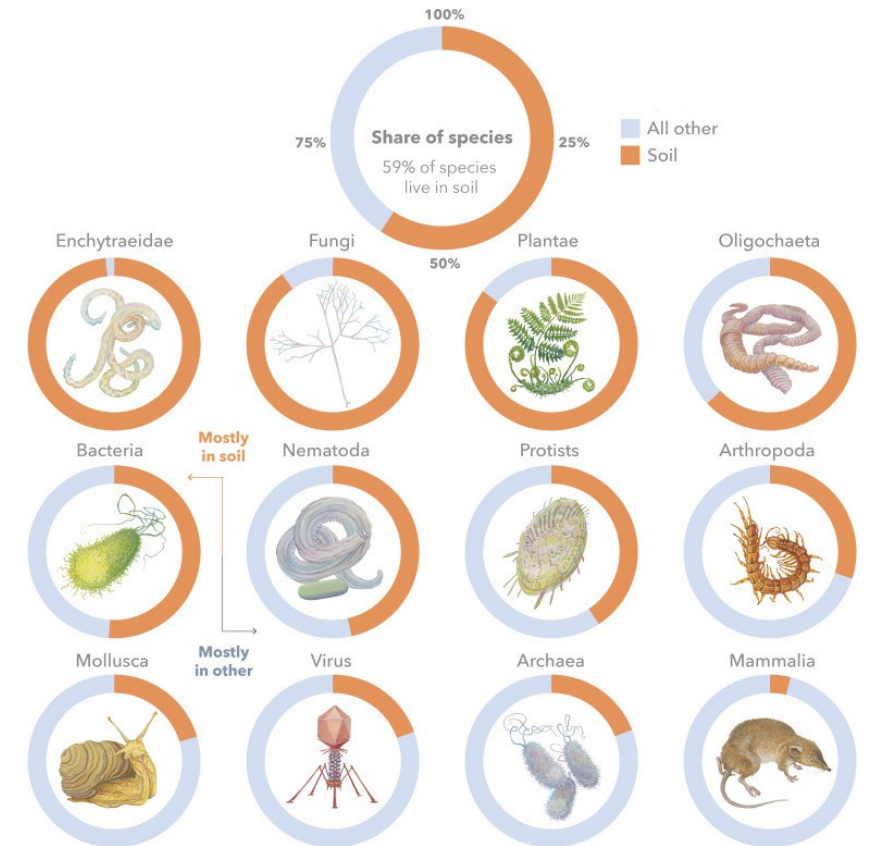
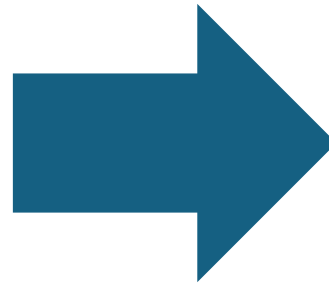
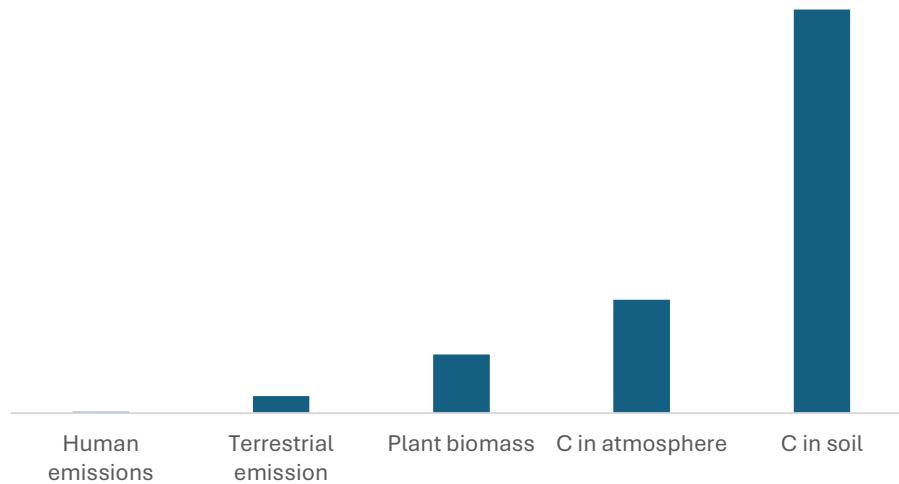
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Course overview – Topics we cover



Module 1: Soil Biochemistry and Functionality

- Soil biogeochemistry
- Case studies: carbon sequestration & resilience to change



Module 2: Soil Biology and Global Changes

- Soil biodiversity and ecosystem services
- Climate change impacts on soils
- Feedbacks between soil health and greenhouse gas emissions

Course details

- **Dr. Martina Mazzon**

 martina.mazzon2@unibo.it

- **Dr. Alberto Canarini**

 alberto.canarini2@unibo.it

-  **Course Period:** Likely 1st Semester 2025
 **Credits:** 6 ECTS (3+3)

- Feel free to contact us with any questions about the course or your enrollment!



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What you'll learn

Knowledge:


- Understand soil chemical/biological composition and processes

Skills:

- Discuss climate–soil interactions with scientific precision

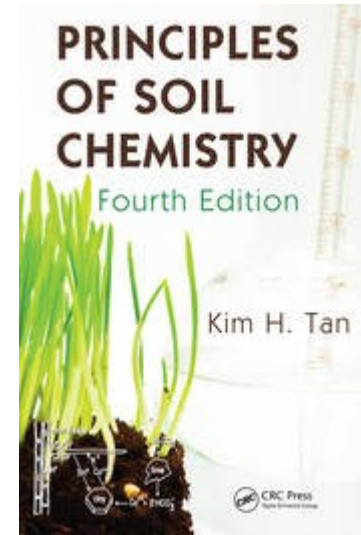
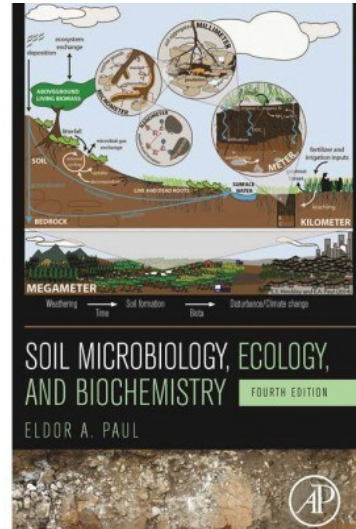
Expertise:

- Propose strategies for ecosystem restoration and climate mitigation

 By the end of the course, you'll be equipped to tackle real-world environmental and agricultural challenges using soil biology principles.

Course material & exam

Reading Material:



Assessment:

- Final oral exam