`Future module`

Change needs education!
Climate crisis

Fig. 1 Change in global surface temperature (IPCC 2021)
Facts about climate change that are indisputable

1. It is real.
2. We are the cause.
3. It is dangerous.
4. The experts agree.
5. We can still do something.

(Deutsches Klimakonsortium et al. 2021)
Facts about climate change that are indisputable

1. It is real.
2. We are the cause.
3. It is dangerous.
4. The experts agree.
5. We can still do something.

(Deutsches Klimakonsortium et al. 2021)
Facts about climate change that are indisputable

1. It is real.
2. We are the cause.
3. It is dangerous.
4. The experts agree.
5. We can still do something.

(Deutsches Klimakonsortium et al. 2021)
Fig. 2 Social tipping points (Otto et al. 2020)
Social tipping points

Fig. 2 Social tipping points (Otto et al. 2020)
Potential space university
Potential space university

teaching
transfer
research

real labors
Potential space university

- teaching
- transfer
- research

real labors

training of change agents

multiplicators

- teachers
- experts
- leaders
Potential space university

teaching

transfer

research

real labors

teachers

experts

leaders
Potential space university

- teaching
- transfer
- research

real labors

multiplicators

- teachers
- experts
- leaders
Potential space university

- Teaching
- Transfer
- Research

Real labors

Training of change agents

Multiplicators

Teachers
Experts
Leaders
Definition:

`Is the ability to set a goal, to act reflectively and responsibly in a self-determined manner in order to actively shape a climate-just future` (OECD 2019)
Climate Agency - Sub-competences

<table>
<thead>
<tr>
<th>Professional and methodological competences</th>
<th>Social competences</th>
<th>Personal competences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build interdisciplinary knowledge</td>
<td>Change perspectives</td>
<td>take responsibility</td>
</tr>
<tr>
<td>Systems: networked thinking</td>
<td>cooperate with others</td>
<td>reflect values</td>
</tr>
<tr>
<td>Anticipation: act with foresight</td>
<td>Participate in processes</td>
<td>Use possibilities for action</td>
</tr>
<tr>
<td>Creativity: critical-constructive thinking</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Education 21 2016)
Model for the promotion of climate literacy

Climate literacy
- knowledge
- values
- skills

Learning opportunities → Educational processes → Climate literacy → Intentions to act → Climate agency

Personality characteristics, cultural, political, family context

(simplified: Michel et al. 2021)
Model for the promotion of climate literacy

(simplified: Michel et al. 2021)
Model for the promotion of climate literacy

Learning opportunities → Educational processes → Climate literacy → Intentions to act → Climate agency

(simplified: Michel et al. 2021)
Model for the promotion of climate literacy

Learning opportunities → Educational processes → Climate literacy:
- knowledge
- values
- skills
→ Intentions to act → Climate agency

(simplified: Michel et al. 2021)
Model for the promotion of climate literacy

Personality characteristics, cultural, political, family context

Learning opportunities → Educational processes → Climate literacy
- knowledge
- values
- skills

Intentions to act → Climate agency

(simplified: Michel et al. 2021)
University teaching should be …

- problem-focused
- interdisciplinary
- context focused
- action-focused (project-focus)
- cooperative
Future module

**What?** Curricular integration of climate and sustainability education into university teaching

**How?** Integration into elective modules and additional qualifications → development of a certificate program

**Who?** Open to all students of all study programs

**When and where?** First prototype course will be at the University of Mainz WiSe 2022/23
Structure of the module

Public Climate Lecture

Project Seminar: climate change and sustainability
Project Seminar

Phase 1: Instruction
Phase 2: Project work
Phase 3: Evaluation + Presentation

Exchange with experts
(privat)
Public Climate Lecture

Visions of the future
Public Climate Lecture

Sustainable Development Goals (UN 2015)
Public Climate Lecture

Sustainable Development Goals (UN 2015)
Public Climate Lecture

Prof. S. Seiffert  
chemistry

Prof. V. Toy  
earth sciences

Prof. V. Cummings  
human geography

Prof. M. Imhof  
psychology
Outlook into the future

Is the future module a vision for all universities?

Utopie Europe Award 2022
22.06. um 16 Uhr
References


