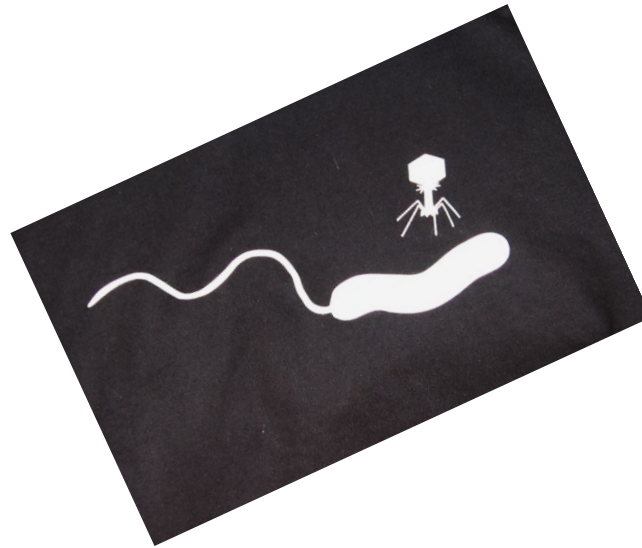


Master Microbiology



Why Microbiology?

- No habitat without microorganisms
- Microorganisms drive global elemental cycles
- Participate in the research of our largest collaborative projects:



“Assessment of ground- and porewater-derived nutrient fluxes into the German North Sea – Is there a ‘Barrier Island Mass Effect (BIME)’?”

www.icbm.de/verbundprojekte/bime

Sonderforschungsbereich
„Roseobacter“

www.roseobacter.de



„Die Ökologie der Moleküle -
The ecology of molecules“ („EcoMol“)

[https://uol.de/icbm/verbundprojekte/
ecomol](https://uol.de/icbm/verbundprojekte/ecomol)



Cultivation of yet uncultured
microorganisms from aquatic
environments

<https://www.multikultivierung.de>



The Dynamic Deep Subsurface of
High-Energy Beaches (DynaDeep)

[https://spark.adobe.com/page/DFH-
IPXIG7nOQw/](https://spark.adobe.com/page/DFH-IPXIG7nOQw/)

What do I need to successfully apply to the Master Microbiology study program?



For admission the program it is mandatory to...

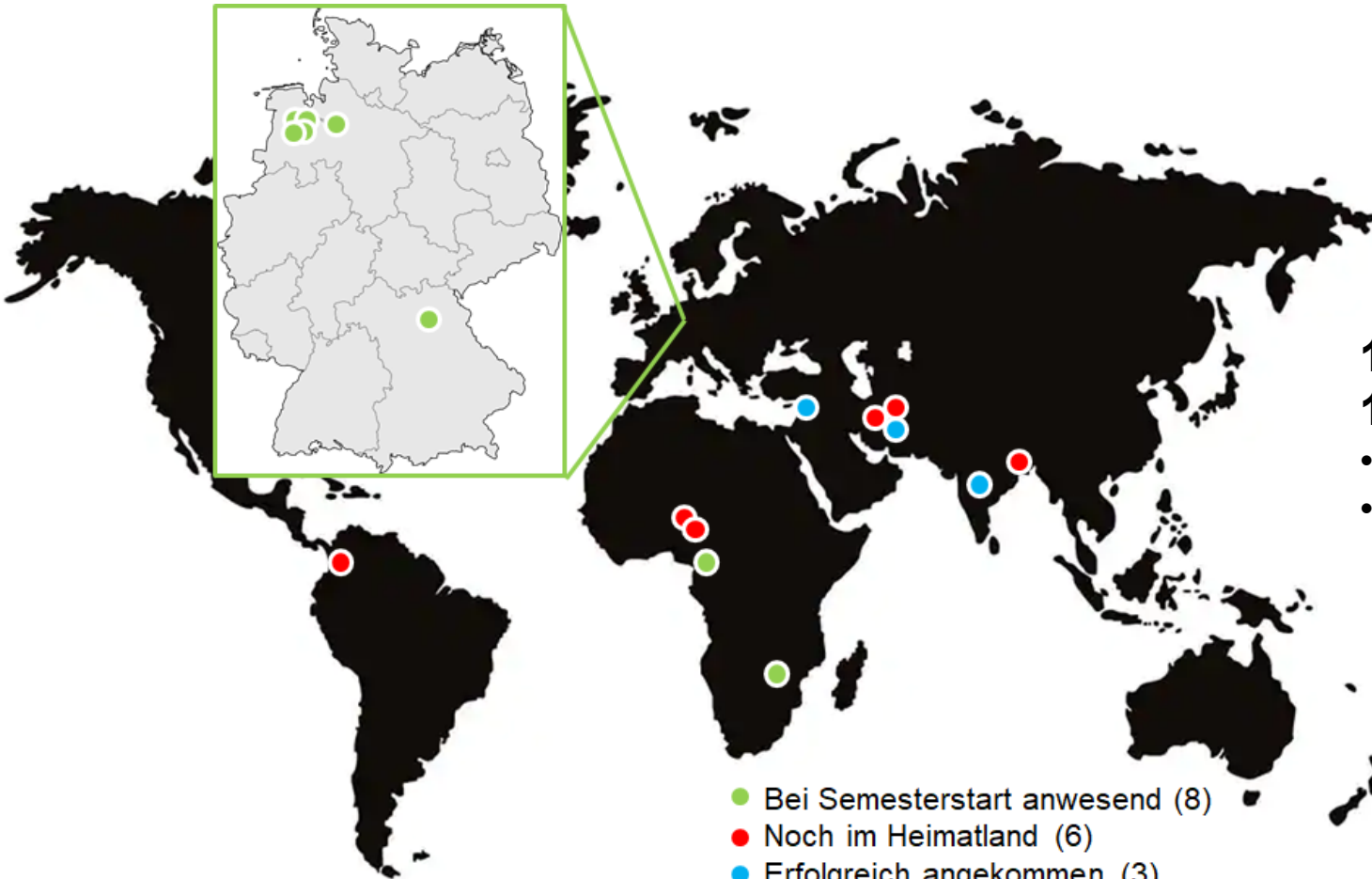
- ...hold a Bachelor's degree in Biology or a closely related field
→ Mandatory topics:
Botany, Zoology, Chemistry, Biochemistry, Genetics, Microbiology, Mathematics, Physics



- ...proof your English skills on C1-level
→ TOEFL: internet-based = 95 p., computer-based = 243 p.
→ IELTS = 7.0 points
→ Cambridge IGCSE, Unicert...
→ National: Abi-Zeugnis = Leistungskurs 11 p., Grundkurs = 13 p.

<https://uol.de/icbm/studium-und-lehre/studiengaenge/faq-frequently-asked-questions>
<https://uol.de/en/course-of-study/application/microbiology-master-212/freshman/de>

Example: Master Microbiology WS20/21



**17 students in
1st semester:**

- 6 nationals
- 11 internationals

- Bei Semesterstart anwesend (8)
- Noch im Heimatland (6)
- Erfolgreich angekommen (3)

Advantage hybrid semester for international students:

- Participation in theoretical lectures (online)
- Immigration/matriculation during the semester possible
→ Participation in lab classes

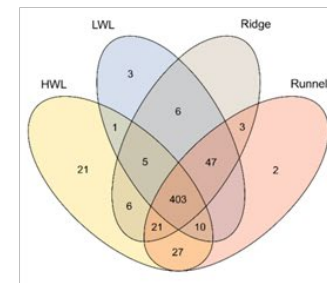
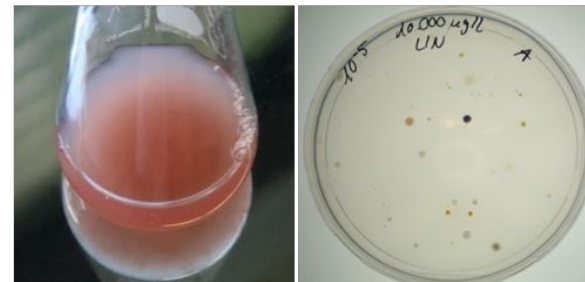
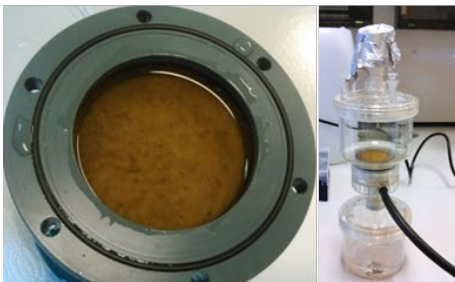
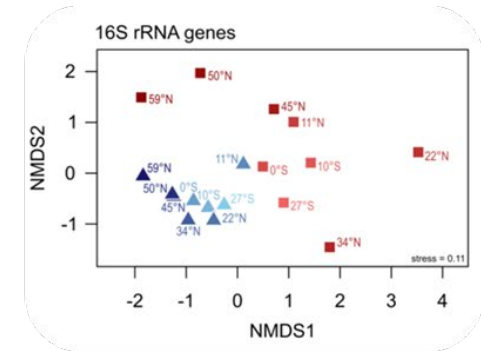
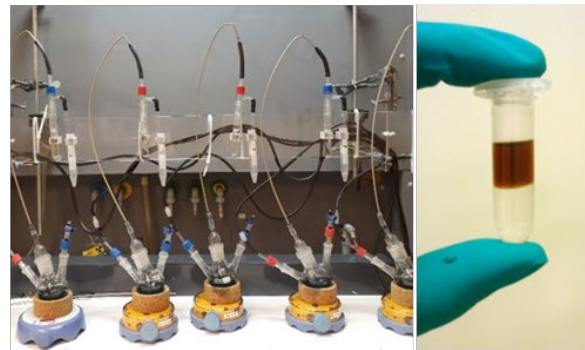
Research-oriented studying



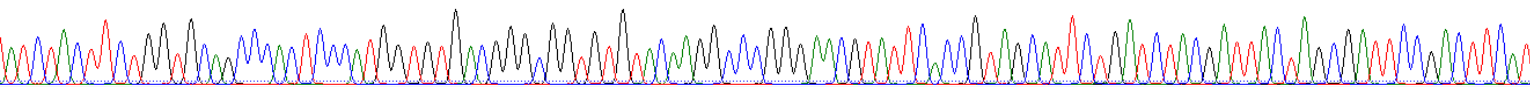
Sampling

Analysis

Data evaluation



50 60 70 80 90 100 110 120 130 140 150
 ATCTACTTCTGGTGCAGCCACATCCCATGGTGTGACGGGGGGTGTGTACAAAGCCCGGGGAACGTATTCACCGTAGCATTCTGATCTACGATTACTAGCGATTCCGACTTCAT



Participating working groups / teachers



Benthic Microbiology

Prof. Dr. Martin Könneke, PD Dr. Bert Engelen



General and molecular Microbiology:

Prof. Dr. Ralf Rabus, Dr. Lars Wöhlbrand



Biology of geological processes:

Prof. Dr. Meinhard Simon, apl. Prof. Dr. Thorsten Brinkhoff



Environmental Biochemistry (WHV):

Prof. Dr. Peter Schupp, Dr. Sven Rohde



Planktology (WHV):

Prof. Dr. Helmut Hillebrand, Dr. Maren Striebel,
Dr. Stefanie Moorthi, PD Dr. Erhard Rhiel



Marine Geochemistry:

Prof. Dr. Thorsten Dittmar, Dr. Jutta Niggemann



Structure of the study program

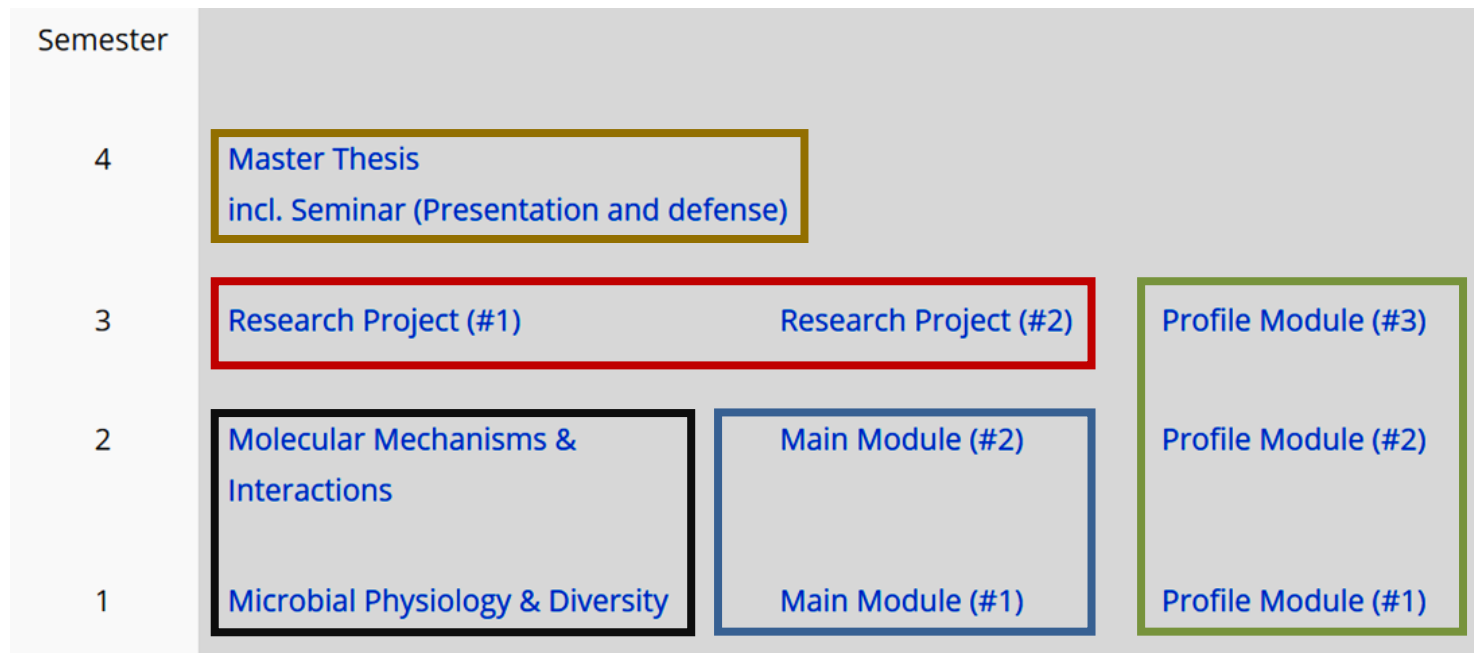


Theory:

- Microbial physiology and diversity
- Molecular mechanisms and interactions

Practice:

- Profile modules (3x 2 weeks)
- Main modules (2x 4 weeks)
- Research projects (2x 6 weeks)
- Master thesis (1/2 year)



Structure of the study program



Theory:

- **Module „Microbial physiology and diversity“:**
 - Physiology and Life Modes of Prokaryotes
 - Microbial diversity
 - Scientific writing and presentation
- **Module „Molecular mechanisms and interactions“:**
 - Molecular Microbiology
 - Microbial Ecology
 - Biological significance of suspended matter or Sediment Microbiology
- Both modules also include an excursion and colloquia in each case



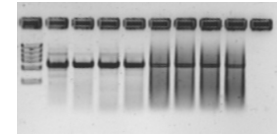
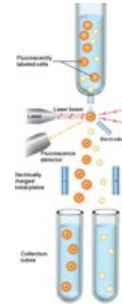
Structure of the study program



Practice:

- **Profile modules (3x 2 weeks)**

- Methods in aquatic microbial ecology
- Microbial ecology of marine sediments
- Introduction into DNA-sequencing and sequence analysis
- R programming for (meta-)genomic sequence analysis
- Chemical ecology
- Techniques in light microscopy and electron microscopy



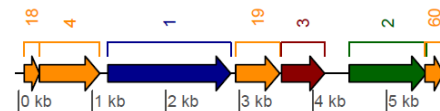
- **Main modules (2x 4 weeks)**

- Ecophysiology of prokaryotes
- Ecology of marine microbial communities
- Functional proteomics with environmental bacteria



- **Independent research :**

- **Research projects (2x 6 weeks)**
- **Master thesis**



More Info



- **Websites of the study program:**

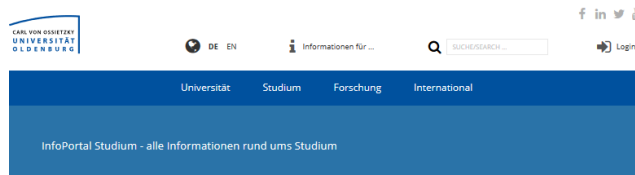
- Uni: https://uol.de/studium/studiengang/?id_studg=212
- ICBM: <https://uol.de/mibi-msc>

- **Advertising movie:**

https://www.youtube.com/watch?v=OvYUySt_byE&t=103s

- **Student Council**

<https://uol.de/fs-master-icbm>



Navigation: [Home](#) / [Studium](#) / [Studienangebot](#) / [Studiengang](#)

Studiengang

Kontakt

Für alle Fragen rund ums Studium:
- Zentrale Studien- und Karriereberatung
Für Fragen zum Studiengang/-fach:
- Fachstudienberatung Microbiology
- Fachschaft Microbiology

Zahlen und Fakten

- Dauer: 4 Semester
- Abschluss: Master of Science
- Sprache: Englisch
- zulassungsfrei
- Besondere Zugangsvoraussetzungen

Wichtige Informationen

[Zugangsordnung Microbiology M.Sc. \(uol\)](#)

Aktuelles

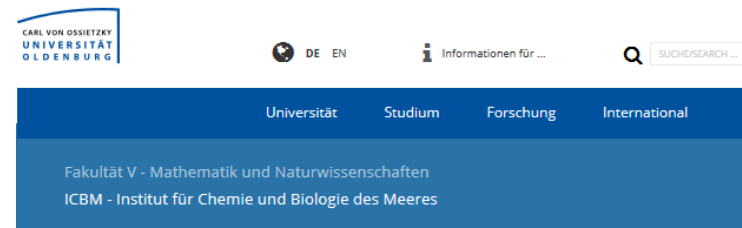
[Microbiology at the University of Oldenburg - youtube.de](#)

Microbiology - Master

[Profil](#) [Bewerben](#) [Prüfungen](#)



Ausrichtung und Ziele	+
Studienaufbau und Studieninhalte	+
Lehr- und Lernformen	+
Gründe für ein Studium	+
Sprachkenntnisse	+
Berufs- und Tätigkeitsfelder	+
Zugangsvoraussetzungen	+
Bewerbung/Zulassungsmodalitäten	+
Weiterführende Informationen	+



Navigation: [\[...\]](#) / [ICBM](#) / [Studium und Lehre](#) / [Studiengänge](#) / [Microbiology \(M.Sc.\)](#)

Microbiology (M.Sc.)

- Studying
- FAQ (Frequently Asked Questions)
- How to apply

ACADEMIC COUNSELLING

Programme coordination
Email: info.microbiology@uol.de

Student body of department
Homepage: <https://uol.de/en/student-council-of-the-icbm-masters>
Email: master.icbm@uol.de



FACTS AND FIGURES

- Degree: Master of Science
- Duration: 4 Semester
- Course start: Annual (winter semester)
- Language: English

Who I am...



Sönke Rolfes

Bachelor: Biology (Uni Oldenburg)

Master: Microbiology (Uni Oldenburg, 4. Semester)

Why have I decided for Master Microbiology in Oldenburg?

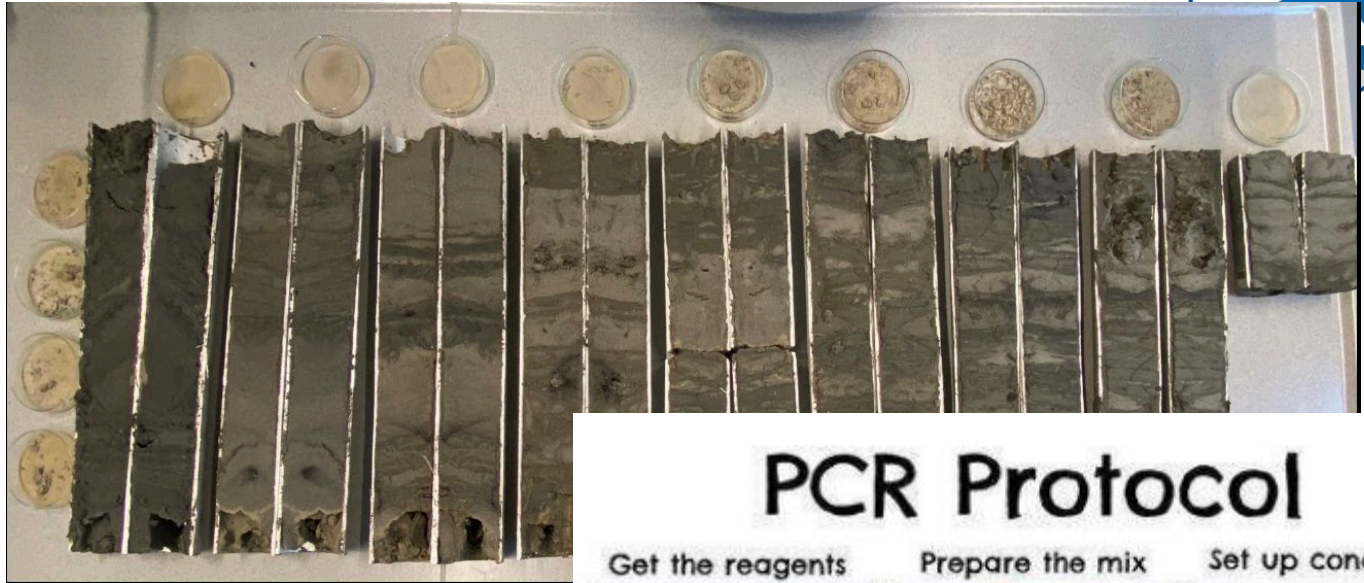
- environmental and marine microbiology
- praxis oriented program

What are the highlights in these studies?

- a lot of practical work (excursions, lab courses, research projects ...)
- small courses
- you are in contact with science

Get in contact with different methods...

ICBM



PCR Protocol

Get the reagents



Prepare the mix



Set up conditions



Analyze the gel



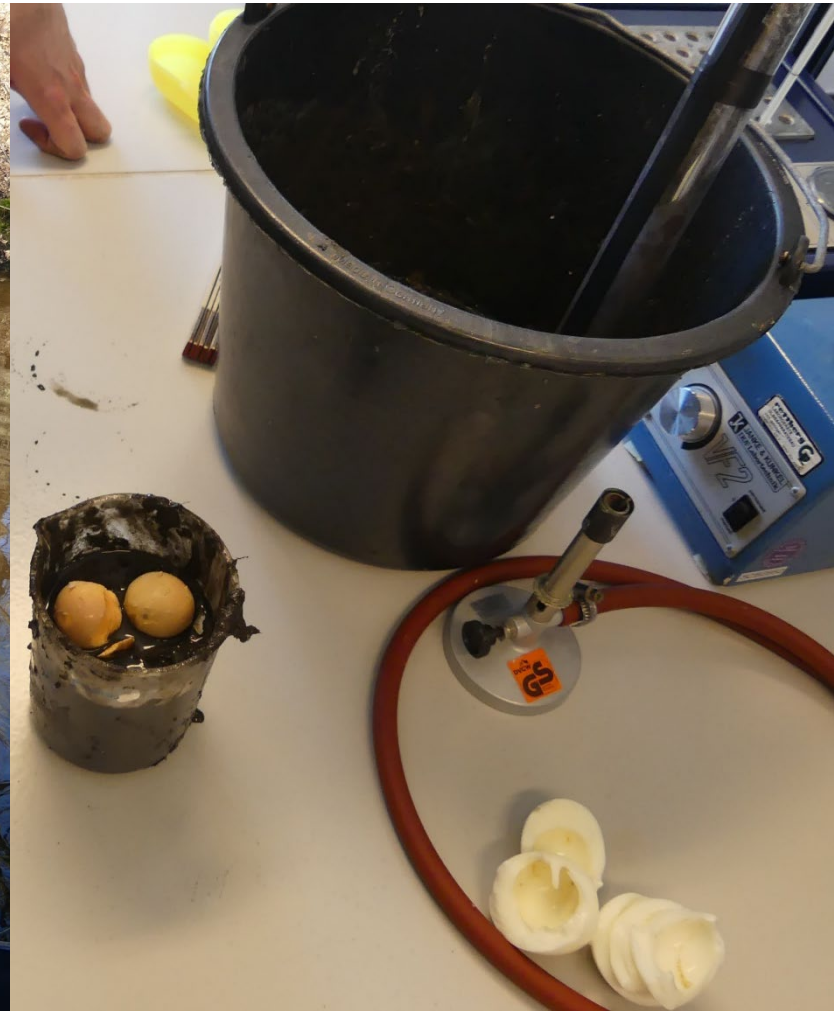
Negative result



Cry



Praxis oriented studies...



Excursions & more...

