Website address:
https://www.gesundheitsindustrie-bw.de/en/article/press-release/fci-supports-teaching-concept-chemistry-tomorrow

FCI Supports Teaching Concept for the Chemistry of Tomorrow

The German Chemical Industry Fund (FCI) is supporting the course offering 'DigiChemJN' at the Faculty of Chemistry and Pharmacy. DigiChemJN strengthens students' data literacy by providing them qualifications in data-based research methods, experimental datasets, and artificial intelligence (AI).

The project 'DigiChemJN – Digital Chemistry Teaching with Jupyter Notebooks' strengthens training in chemical data sciences at the University of Freiburg and further integrates digital competencies into master's degree programmes in Chemistry and Pharmacy. The three-year project involves developing and extending interactive learning modules that qualify students to deal with data-based research methods, experimental datasets, and artificial intelligence (AI). DigiChemJN focuses specifically on students' data literacy, their ability to understand, analyse, effectively apply, and critically evaluate data. The German Chemical Industry Fund (FCI) will provide 79,000 euros in funding for the project, which is to start in July 2026 at the Faculty of Chemistry and Pharmacy.

Learning with real research data

'With DigiChemJN, we're developing a course offering that integrates digital competencies and methods even more tightly into research and teaching in chemistry and pharmacy', saysProf. Dr. Stefan Günther, professor for pharmaceutical bioinformatics, who is heading and organizing the project together with Prof. Dr. Ingo Krossing, professor for inorganic chemistry. The programme's concept calls for master's students to use web-based Jupyter notebooks as an interactive learning and working environment, allowing them to learn fundamental content and evaluation methods flexibly, either through self-study or with guidance (flipped classroom approach).

'With DigiChemJN, we're developing a course offering that integrates digital competencies and methods even more tightly into research and teaching in chemistry and pharmacy.' - Prof. Dr. Stefan Günther

Professor for Pharmaceutical Bioinformatics, University of Freiburg

'The most important thing for us is that the students will be working with real data from the faculty and will therefore come into direct contact with our research', says Krossing. These data will be processed and made available in the long term in accordance with internationally valid FAIR principles within DigiChemJN. The programme also includes a mentoring concept and regular data cafes, in which teachers, researchers, and student assistants can develop suitable datasets and topics for new learning modules. These materials will then be made available on a Jupyter notebook server free of charge at University of Freiburg's University IT Services under an open Creative Commons licence. In the medium term, the modules can be transferred to further degree programmes.

Press release

29-May-2026
Source: University of Freiburg

Further information

- University of Freiburg