

Virtuelle Hochschule Bayern (vhb)

Bavarian Virtual University (BVU)

The Virtuelle Hochschule Bayern (vhb) / Bavarian Virtual University (BVU) was established in 2000 as a network organization of the universities and universities of applied sciences of the Free State of Bavaria, one of the 16 German federal states. Since then BVU promotes and supports the development of digital courses and teaching units for use across the universities in the network. Its primary goal is to improve studying conditions and meeting the growing demand for flexibility both in terms of time and place. The vhb is established in the Bavarian higher education system and is a stable partner for digital teaching. The BVU is a unique model across Europe.

Portfolio – Funding Guidelines – Programme Structure

The BVU portfolio includes online lectures and online learning units for university studies, open courses for the general public and a platform for the distribution of open educational resources (OER) which were developed at the member universities. The vhb provides project funding for the development of online courses and digital learning units to the member universities within the framework of funding rounds. All online courses and online teaching units are developed and offered by professors at Bavarian universities. The lecturers of the member universities can also bring in digital courses and learning units that were not funded by the vhb and make them available to all students in the network.

a) CLASSIC vhb – Online Courses for Degree Programmes

In the summer semester of 2023, more than 570 CLASSIC vhb courses are available in 15 subject groups; a further 20 courses are currently being developed. The online courses are tailored to and usually integrated into degree programmes at multiple member universities. With its portfolio, the BVU considerably extends the range of courses offered at Bavarian universities. Each course provides students the possibility to earn credit points (ECTS). Interactive teaching and learning is a central aspect of all BVU courses; all participants are supervised by trained e-tutors. Because interaction has such an extraordinary bearing on learning success, the BVU funds the supervision of the participants and the training of the tutors, besides funding the actual development of the courses.

More than 50 % of BVU course participants complete the examination associated with their course. Students who do not complete the examination use the courses as additional drilling, practice, or simply to acquire new knowledge, in order to improve their performance on examinations at their home university.

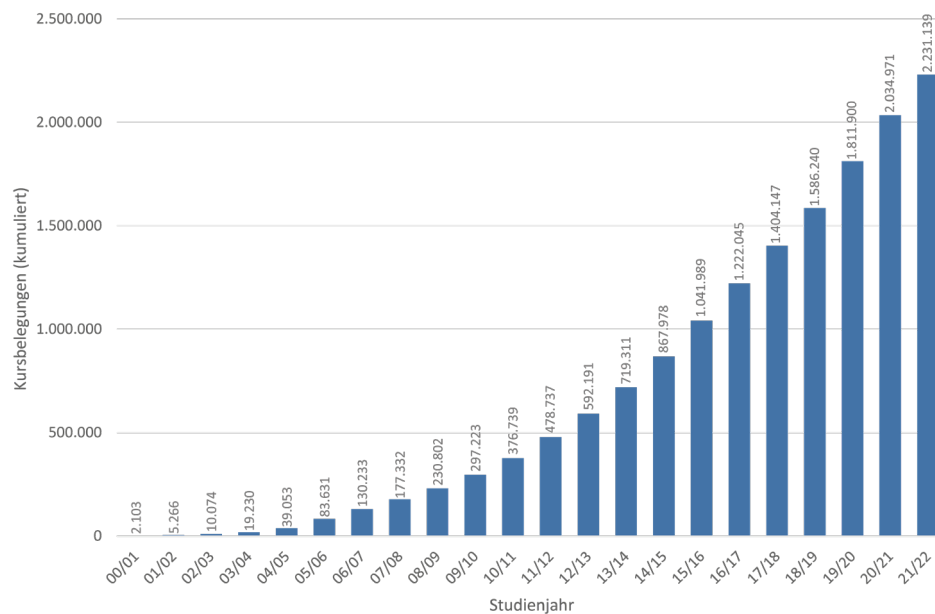


Figure 1: Course enrolments (cumulative) at the end of the respective academic year

In total, there have been more than 2 million course enrolments since the vhb was founded. The past academic year 2021 / 2022 alone saw more than 196,000 course enrolments by 68,708 students. The exchange between all our member universities has proved successful. More than 55 % of all course registrations by students are for courses that are not offered by their home university. This positive effect is also true across the different types of higher education institutions: every year thousands of universities of applied sciences (UAS) students take courses offered by universities and thousands of university students take courses offered by UAS.

The state government funds the coordinated and demand-oriented development of digital courses for use across all higher education institutions in the BVU network. The courses are developed and provided on the basis of funding proposals from member universities. Proposals for new courses must be submitted by a consortium of at least two member universities. The universities in the consortium guarantee that the course will be a required course or a required elective course in their degree programmes and that the credits earned in the course will be accepted as transfer credits. The BVU will also fund preparatory courses (introductory courses, preparatory courses for examinations, etc.) that are not integrated into any set curriculum, on a case-by-case basis. For students at member universities, BVU courses are free of cost; other participants can participate in supervised courses for a fee.

Currently, the BVU offers courses from across 15 subject groups: introductory courses, computer science, economic sciences, engineering, health care / health management, humanities, information systems, key skills, languages, law, medicine / medical science, natural sciences, social work, social sciences and teacher education. See kurse.vhb.org.

b) SMART vhb – Blended Learning for Lectures

With “SMART vhb” the BVU funds and promotes the development of digital learning units that are designed for flexible use in blended learning in individual lectures. Instructors and students from our member universities can use the units. The units can comprise diverse instructional material such as exercises, videos, text elements, or simulations related to a given topic. The creation of new learning

units and the adaptation of existing materials are funded. They are available in a central repository smart.vhb.org. Around 1,800 units are currently accessible.

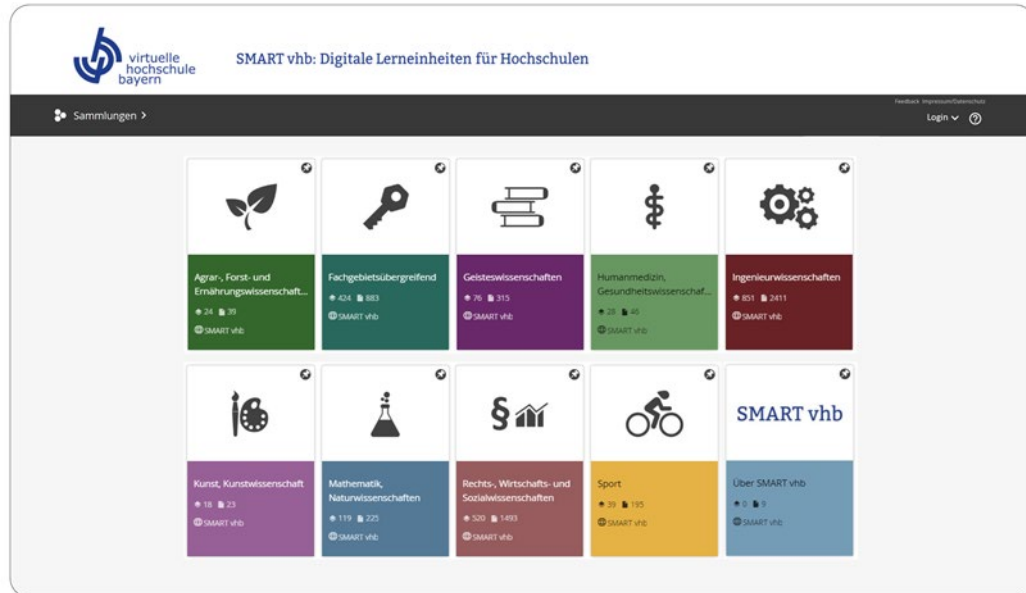


Figure 2: SMART vhb repository

c) OPEN vhb – University Knowledge freely accessible for Everyone

OPEN vhb courses impart university knowledge on a wide range of topics free of charge and are aimed at an interested general public. The fields of medicine and health sciences, law, humanities, cultural and social sciences, computer science, engineering and natural sciences are represented, among others.

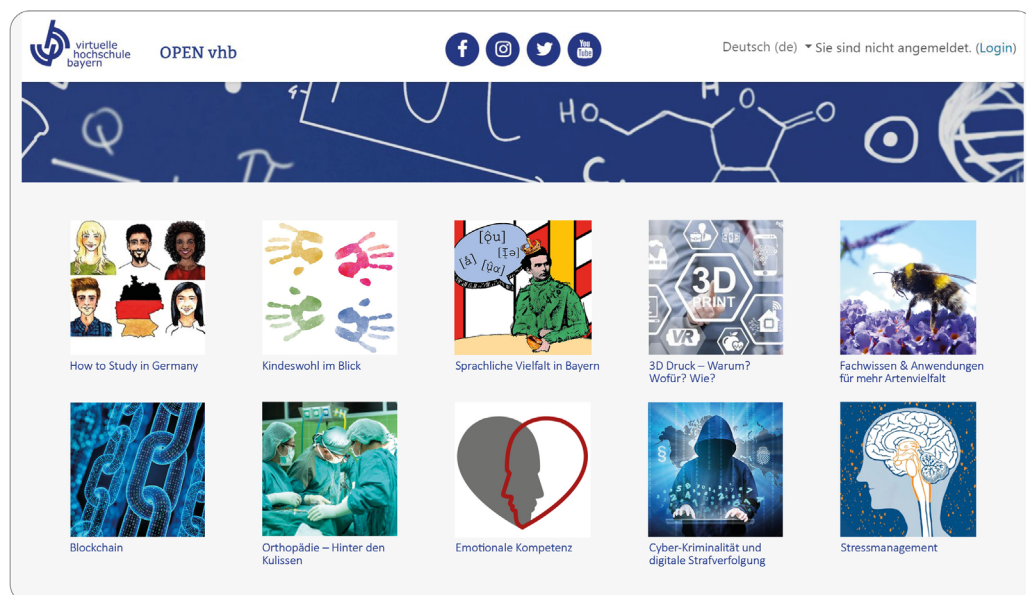


Figure 3: OPEN vhb course examples

To use OPEN vhb courses, you do not need to be enrolled at a university, nor do you need a university entrance certificate. The courses are not bound to the academic schedule and can be completed at your own learning pace. Most courses offer a certificate of participation after successfully completing tests. There are no credits awarded for OPEN vhb courses, nor they are supervised. OPEN vhb also gives the member universities the opportunity to reach future students with appropriate offers (e.g. with bridging and introductory courses). There are currently 125 courses available on the open.vhb.org platform, including 26 in English and two in Spanish. 13 are being developed. More than 91,500 learners from around 150 countries have registered so far. On average, one person takes two courses. More than 21% of the course participants have completed their courses, a remarkable number compared to other MOOC platforms.

d) OER@vhb

In the repository oer.vhb.org, professors from the member universities make freely available educational materials they have developed - OER (open educational resources). The digital learning/teaching formats range from individual materials (illustrations, graphics, videos, etc.) to multimedia learning units and complete courses from learning management systems. Through technical networking, the OER@vhb can also be searched and found via other portals and repositories. In this way, the provision via the vhb guarantees the visibility of the materials in the Germany-wide university context and beyond.

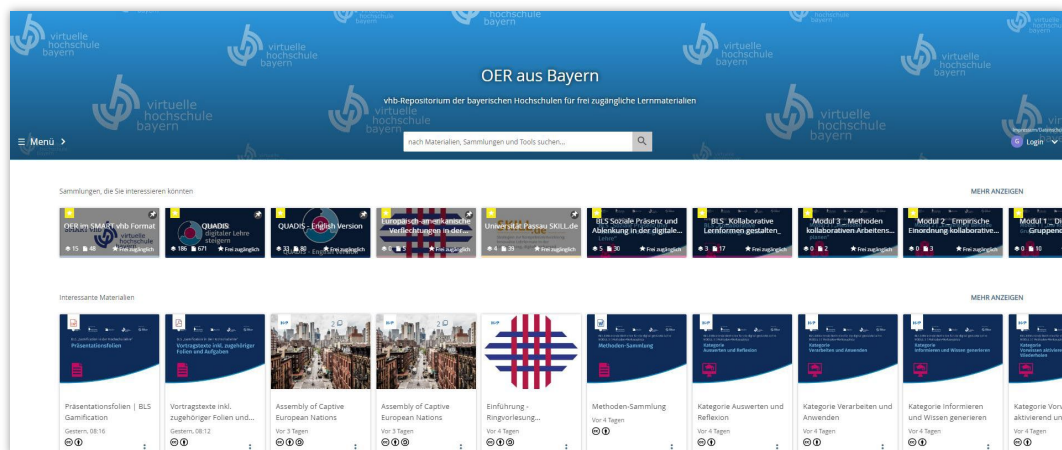


Figure 4: Repository for OER developed by the network universities

Organization

The BVU network currently encompasses 33 member universities with some 373,000 students. More than 250,000 students are enrolled at the 13 universities in the network and around 123,000 at the universities of applied sciences and a university of music.

Several hundred professors in Bavaria are involved in the BVU either in a teaching capacity or as committee members. The Assembly of Member Universities is the basic governing body of the BVU; it comprises delegates from each member university. On proposal of the Association of the Bavarian Universities and the Association of the Bavarian Universities of Applied Sciences (UAS) the Assembly elects the three members of

the Steering Committee and the eight members of the Programme Committee. The Steering Committee develops the guidelines for the overall program of the BVU, decides on the budget and decides on the funding applications from the member universities. The Programme Committee advises the Steering Committee on all questions related to the course programme and quality management. The BVU Office in Bamberg supports the committees.

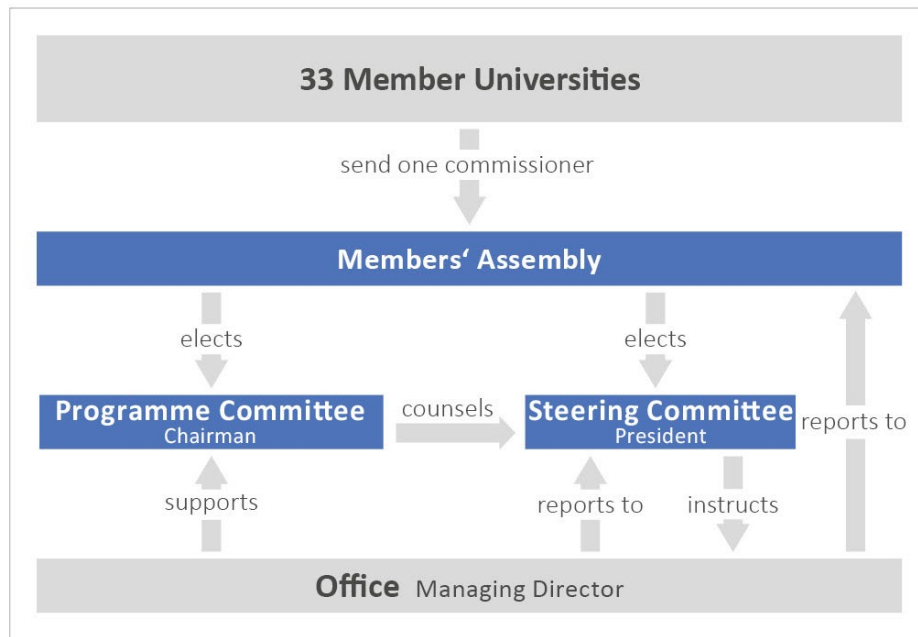


Figure 5: vhb Organisational structure

The vhb is a dependent institution of the Free State of Bavaria and is directly subordinate to the Bavarian State Ministry of Science and the Arts in terms of budget.

Cooperation and Coordination

The coordination and cooperation managed by the BVU results in an efficient use of public funds. The BVU supports the higher education institutions and strengthens the university landscape in Bavaria. CLASSIC vhb courses and SMART vhb units supplement and complement on-campus study. The network for digital teaching across universities represents a unique position of Bavaria as a place for higher education and is a unique model in comparison with other European countries.

Technology

As much as possible, the current infrastructure at the member universities is used. The CLASSIC vhb courses with tutorial supervision are hosted on the member universities' respective servers. The course catalogue and participant registration are managed centrally by the vhb office. In order to make accessing the courses as simple as possible, a Single-Sign-On access system based on Shibboleth is used in cooperation with the member universities; this means students can log in to the BVU portal and the campus Learning Management Systems (LMS) using their personal university login information. The learning management system for

courses in OPEN vhb (a modified MOOC enabled Moodle MOOIN by oncampus) as well as the repositories for the blended learning units in SMART vhb and OER@vhb (edu-sharing by Metaventis), are centrally managed by the BVU Office.

Quality Management

Quality management is especially valued at the BVU. All online courses are evaluated by the participants. In addition, every CLASSIC vhb course is evaluated on its content, use of media in instructional design and the technological implementation by two experts from outside of Bavaria; these peer evaluations take place regularly—once after the first two semesters and, thereafter, after five sessions of a given course. Evaluations by participants and external experts of the courses in OPEN vhb are also implemented. If improvements or revisions to the courses are recommended, the BVU will fund such measures.

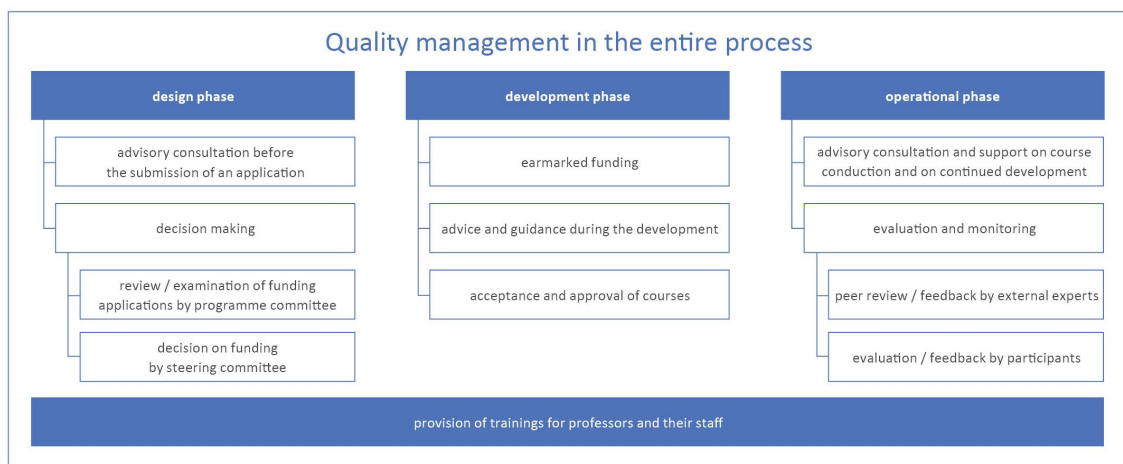


Figure 6: Quality management in the process

More information is available on our website at www.vhb.org/

(As of 14 April 2023)