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ALIGNING HIGHER EDUCATION WITH INDUSTRY NEEDS: EVALUATING A WORK-INTEGRATED COMPUTER SCIENCE PROGRAM

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Abstract

The work-integrated Bachelor's program in Computer Science at the UAS Technikum Wien combines academic education with professional practice to prepare graduates for the rapidly evolving information technology sector. To ensure that the program continues to achieve its educational objectives while responding to changing industry requirements, a comprehensive evaluation was conducted based on the institution's seven quality objectives, including study feasibility, curriculum relevance, organizational effectiveness, learning support, teaching quality, international competencies, and the integration of research and development. The evaluation adopted a mixed-methods approach, combining qualitative and quantitative data collected through surveys of students, faculty, alumni, and industry partners, complemented by workshops

that explored experiences with the integration of theory and practice, workload, communication, and curriculum organization. In addition, an occupational field analysis of more than 900 job advertisements identified current and emerging competence requirements, particularly in generative artificial intelligence, agile software development, and accessibility standards. Statistical indicators, including student performance, progression, dropout rates, and graduate employability, were also analyzed to provide a comprehensive assessment of program effectiveness. The findings demonstrate that the program's strong practical orientation, close collaboration with industry, and successful integration of academic learning with workplace experience represent significant strengths that contribute to graduate employability. At the same time, opportunities for improvement were identified, including better alignment between courses, a more balanced workload distribution, enhanced communication structures, and curriculum updates. The proposed measures, including new courses on foundation models, revised career pathways, and the systematic integration of artificial intelligence and accessibility, are expected to strengthen curriculum relevance, improve the student learning experience, and ensure that graduates are well prepared for future challenges in the information technology profession.

Keywords:
Work-Integrated Learning, Curriculum Evaluation, Higher Education, Employability