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Title of the Paper¹

BOKUfirst – BOKU females in research, science and technology

Abstract:

BOKUfirst - is a qualification program for female students seeking a job or career in the public or private R&D-sector. There are two objectives of the University of Natural Resources and Applied Life Sciences Vienna (BOKU) with this program: Specific additional qualification for students in preparation for a career in the R&D sector and raise the attractiveness of studies in the field of life sciences as well as techniques.

Key words: qualification program, female students, career in the R&D sector, research, science and technology, life sciences

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Paper

BOKUfirst – females in research, science and technology is a two years program supporting female students to start a career in research and development (R&D) in the field of natural sciences and technology. The program is financed by the Austrian Federal Ministry for Transport, Innovation and Technology (BMVIT) and the project partners Austrian Institute of Technology (AIT), Baxter, Austrian Federal Forests and Umweltbundesamt (expert authority of the federal government in Austria for environmental protection and environmental control). There are 2 columns of BOKUfirst:

1. Qualifications Program beside the main curriculum
2. Integration in R&D activities of partnering companies

¹ A draft of this contribution will be presented and discussed at the Decowe Conference: Ljubljana, Slovenia, 24-25 September 2009.

1. Qualifications Program

Beside the main curriculum the project “BOKUfirst” offers a modular qualification program on competences in science, communication, in project management and in personal competence. For each single module of the qualification program a workshop is organised. These workshops, lasting several days, are held by experts and give students the opportunity to work in small groups and the possibility of reflection.

Contents of Module 1 “Competence in science”:

- Scientific working
- Literature research
- Scientific language and terminology

Learning Outcomes of Modul1 are to be able to develop concepts and to apply scientific language and terminology (in german and english).

Contents of Module 2 “Competence in communication”

- Principles and methods of communication
- Rhetoric and presentation
- Human resources management
- Internal and intercultural communication

Learning Outcomes of Modul 2 are applying elocution and body language, self-confidence in oral presentations, decoding customer needs and writing and presenting project proposals.

Contents of Module 3 “Project management”

- Economic basics and general management
- Introduction in strategy, marketing and quality management
- Practical project management (IT-Tools)

Learning Outcomes of Modul 3 are writing and defending project proposals, defining project milestones & project budgeting, applying key data and management tasks and applying project planning software.

Contents of Module 4 “Personal competence/ Empowerment”

- Career and career management
- Work-life-balance
- Time management
- Teambuilding
- Feminist theories and gender aspects in natural sciences

Learning Outcomes of Modul 4 are reflecting the work biography, reflecting and defining career-concepts and planning first steps of concepts.

2. Integration in R&D activities of partnering companies

Students are integrated in 4 different levels:

- 4 students take part in the companies own human resources development program
- 7 students complete a internship
- 9 students write their master thesis within a current or new company research-project
- 2 students write their doctoral thesis within a current or new company research-project

The topics of the thesis at the moment are:

Biotechnology

Forestry

Spatial Research

Organic Pollutants in the Soil

3. Further offers

BOKUfirst offers the participants also excursions to R&D-Companies, a series of lectures with female experts, networking and a mentoring program.

The integration enables most of the students to take part in the companies' research activities at a high level of organisation. The intention is on the one hand to deliver insight into an attractive occupational area. On the other hand the companies have the chance of recruiting qualified personnel at an early stage of higher education without long term commitment.

The program started in February 2009. After the application period and 3 assessment centers, the first qualifications-workshop took place in May 2009. To enable community building within the group of students we choose a location in the Austrian Alps and it lasted for 3 days. Most of the students didn't know each other before. The community building was important to enable an exchange of experiences between the different fields of integration and topics. This exchange is also supported by an internet based platform.

Lessons learned

The main difficulties at the beginning laid within the starting period. Due to some preceding internal difficulties the program started with 3 month delay. The application started during the first weeks of the semester, which is normally a period of orientation for the students and the time of inscription. The time schedule has to be adapted for the next time.

We need a wider range of partnering companies to cover all the scientific fields of the universities and enable the program to the excellent female students of every branch of studies.

Literature

Haidinger, W. et al. (2007): Menschen schaffen Zukunft - Aktionspapier der Industriellenvereinigung zur Sicherstellung des Nachwuchses in Naturwissenschaft und Technik, Wien, 2007

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