

Fremerey, M. und M. Pletsch-Betancourt (Hrsg.) (2006): Prospects of Change in Higher Education – Towards New Qualities & Relevance. IKO-Verlag für Interkulturelle Kommunikation: Frankfurt am Main, London.

## **Curricula Reforms and Accreditation in German Higher Education - Being Ready for Changes**

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### **Introduction**

The modularization of degree programmes and the introduction of Bachelor-/ Master degrees has dominated the discussion of higher education policy in Germany and all over Europe since the decision taken by EU members at Bologna in 1999. External accreditation agencies have been set up to check the quality of the new courses independently of the institutions of higher education themselves and government ministries. These agencies, understandably, make use of criteria that will apply across courses and subjects. Against the background of increasing interest, especially from abroad, in setting up courses in organic agriculture the question is whether further aspects should be considered for the purposes of accreditation. In the discussions about the specifically ecological quality of the courses there is often a certain imprecision in the attempt to describe exactly this quality in such a way that it can be scrutinized by external referees.

The following article is based a 10 year-plus experience with ecologically oriented agricultural courses and study reforms in Witzenhausen, which among other things were accompanied in academic terms by a federal-state trial model (1995 – 1999) (Mittelstraß und Wesseler 1999). In 1993 the major subject Organic Agriculture was set up, followed in 1996 by the independent degree course (Diplomstudiengang) in Organic Agriculture. This was modularized in 2001 and transformed into Bachelor-/ Master degree course called Organic Agriculture in the summer semester of 2005. To reinforce the international bias an English-language Master degree course International Ecological Agriculture was accredited in 2002, followed by a second course International Food Business and Consumer Studies in autumn 2006.

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### **"Bologna" and the need for accreditation**

The main aim of the Bologna Declaration of 1999, which was signed by 29 countries, was to create a unified European higher education zone by 2010. The following measures were agreed (VDI 2004):

- the introduction of two-stage degree courses (Bachelor/ Master), which are both intended to provide a professional qualification,
- the introduction of a Diploma supplement to improve the compatibility and comparability of higher education institutions,
- the introduction of a unified performance points system (ECTS)
- and the promotion of mobility and a work-related qualification.

To ensure minimum standards of new courses procedures independent of government accreditation were developed. In Germany these procedures are being carried out decentrally by various agencies, which in turn are evaluated regularly by the Central Accreditation Council. The Conference of Culture Ministers has continually taken decisions since 1998 about clear joint goals for the new courses. Accreditation of a new course is granted after testing subject and institutional criteria, the professional qualification value of the degree awarded and the coherence of the total concept. The professional qualification value will be measured with respect to competence in subject, methodology, social skills and self-study. (KMK 2003, ZEvA 2003).

The accreditation procedure is still too recent for its effectiveness to be assessed, because there are still no reports about the re-accreditation of courses. The faculties concerned and higher education institutions still have difficulty in implementing this reform process quickly and efficiently. On the one hand, they are confronted by an enormous expenditure of time and resources, but they gain a source of important information about the quality of their work. It remains to be seen whether the accreditation results will be used as a economic control instrument within the institutions of higher education, as has already been demanded by some.

### **Characteristics of organic agriculture and challenges to higher education**

There will always be those who wish to reduce organic agriculture to another cultivation technique. Study of the roots of organic agriculture or the

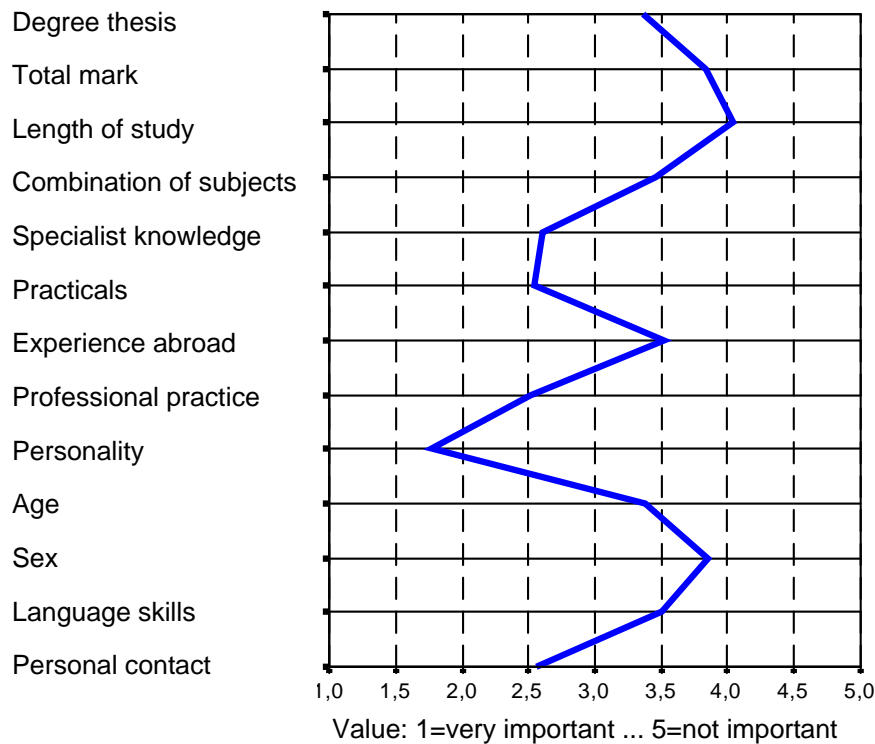
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IFOAM (International Federation of Organic Agricultural Movements) basic guidelines show that it has always been and still is a question of more than this. Ultimately it is a matter of a holistic, systemic consideration of natural conditions and the various interventions of human beings which then lead to other cultivation techniques. Sustainability is automatically a core element of this economy.

What this means for higher education is the subject of a study in general carried out by the Federal Research Ministry (Bundesforschungsministeriums) for those engaged in organic agriculture (Nitschke 1996): it is important to offer the study organic agriculture not only as an additional component, but rather an integral one. A core element of the course is learning environmentally-related and general organic competence, a sense of professional responsibility for nature and environment and the ability to manage and act that spans the well-known divide between environmental knowledge and environmental action. These core elements have to be implemented, according to subject, in the appropriate content and forms of learning and a suitable institutional "culture" at the higher education institution.

These general statements are confirmed also by a questionnaire of our own presented to the graduates. By far the most important criterion for the first job, according to graduates, is personality. Practical and specialist knowledge are also included. Much less important are total marks, length of study and sex.

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**Fig.: Criteria for a successful career entry (Graduate Survey 2005, n=261)**

### The "organic profile" of the Witzenhausen degree courses

Witzenhausen found it easier to implement the modularization than other places. Firstly, there was a "reform culture" in the faculty as a result of the introduction of an ecological component into the courses, and it was possible to access the experience of a federal-state model, in operation since 1999, to modularize four Faculties of Agriculture (Hohenheim, Göttingen, Kiel, Neubrandenburg). Secondly, the modularization was first implemented in 2001 in the existing degree examination regulations (Diplomprüfungsordnung) by a change in the course regulations. In this way the new orientation of modules, both in terms of content and structure, could be "experimented with". Moreover, unlike most German higher education institutions, the University of Kassel has had a tiered and transparent model with two degrees, Diplom I and II, which has made the change to the Bachelor-/ Master model substantially easier.

In terms of content the new Witzenhausen courses are in line with the accredited courses and the additional and integral components that reinforce the organic aspects (Mittelstraß 2005). Thus, in the initial stages of the

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Bachelor programme the module Ecology and Introduction to Agricultural Systems or in the Master programme the module Ecology and Agroecosystems as clearly proven environmentally-related modules. Ecology is also firmly anchored in almost all other modules, and this can be seen in the detail of the module descriptions. Thus for example, there is no detailed discussion of chemical agents used in plant protection, but the systemic approach involving crop rotation and biological plant protection is addressed in detail. An expression of this often inter-disciplinary approach is that in many modules teachers from various departments collaborate. It is also important that all students learn about the Soil Science, Plant Production, Animal Husbandry, Economics and Social Sciences. The goal of the Bachelor level is the general one with individual major subjects. In the Master programmes the goal becomes individual specialization with more options, based on methodological principles.

With respect to teaching methods there is a conscious preference for methodological variety between and within the modules. Thus, in addition to the input-oriented lecture there are excursions and exercises to stimulate and reinforce the relationship to practical experience. Those students who come from a non-agricultural background can benefit in terms of practical experience from the 13 week pre-practical and the four-month professional practical in the Bachelor course. Practical experience is also expected in the Master course from students who change from another subject. In addition to the modules two theses will be required of students on the Bachelor course, and one for the Master course. The point of the theses is, in addition to help acquire problem-oriented specialist knowledge, to learn and practise key professional qualifications, such as communication and organization.

Various elements help to create an "institutional ecological culture in Witzenhausen. They include the regular application of methods of evaluation and quality assurance in teaching. Thus, every year data collection surveys in the first semester are carried out in order to find out where the students come from and what motivates them. The quality of teaching is evaluated in all three semesters. The graduates are surveyed every five years so that a more precise assessment can be made of career entry and job continuance. There is also a particularly good climate of communication in the various committees between teachers and students (students as the motor of

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development), interdisciplinary research projects and the study of international and intercultural problems. Moreover, there are also important resource prerequisites, such as a large-scale ecological teaching and experimental operations, organic greenhouse facilities down to an "organic lunch" in the faculty canteen (Mensa).

### **Quality standards for organic agriculture courses**

Some features of the Witzenhausen courses, such as specific teaching content and forms or international orientation, have generally been examined by accreditation agencies. For the accreditation of an ecological profile the following quality features should also be taken into account:

#### (1) Content:

- a systemic interdisciplinary approach within the individual modules;
- a transmodule network of sustainable practices integrating current research activities (problem-oriented learning);
- an express attempt to ethically ground academic teaching and teaching content considering longer-term effects.

#### (2) Teaching/Methods:

- teaching and forms of teaching aimed at acquiring ecologically professional methodological competence ("Respect for Nature"), interdisciplinary projects (also as examination performance) and practical times;
- effective interaction of teachers, students and representatives of organic agricultural professional practice in the planning, execution and evaluation of the curriculum.

#### (3) Institutional "culture":

- a functioning communication "culture" among the teachers (specialist groups) and between students and teachers (committees);
- a dynamic quality "culture", including the ability to use existing resources that is in line with local as well as global ecological demands;
- an ecological orientation in terms of resources (e.g. teaching and experimental operations, laboratory, canteen).

The features are ambitious and not yet fully implemented in Witzenhausen. At the same time the large task is to find reliable indicators for standards such as these - and referees - and altogether to come to a sustainable

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weighting of all criteria. Nevertheless, the criteria will help to better describe the dimension of ecology in higher education.

Altogether the debate with and implementation of the Bologna decisions in Witzenhausen have led to a clearer structuring of the courses offered. Further characteristics are the shortening of the first degree and the practical periods together with the strengthening of the Master programme and the optional parts. It remains to be seen how the students will take advantage of the new system. Witzenhausen is ready for changes.

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