

Grollmann, Philipp; Patiniotis, Nikitas; Rauner, Felix  
**A Networked University for Vocational Education and Human Resources Development**

Bremen : Institut Technik und Bildung 2003, 13 S. - (ITB-Forschungsberichte; 5)



Empfohlene Zitierung/ Suggested Citation:

Grollmann, Philipp; Patiniotis, Nikitas; Rauner, Felix: A Networked University for Vocational Education and Human Resources Development. Bremen : Institut Technik und Bildung 2003, 13 S. - (ITB-Forschungsberichte; 5) - URN: urn:nbn:de:0111-opus-91709

#### Nutzungsbedingungen

Gewährt wird ein nicht exklusives, nicht übertragbares, persönliches und beschränktes Recht auf Nutzung dieses Dokuments. Dieses Dokument ist ausschließlich für den persönlichen, nicht-kommerziellen Gebrauch bestimmt. Die Nutzung stellt keine Übertragung des Eigentumsrechts an diesem Dokument dar und gilt vorbehaltlich der folgenden Einschränkungen: Auf sämtlichen Kopien dieses Dokuments müssen alle Urheberrechtshinweise und sonstigen Hinweise auf gesetzlichen Schutz beibehalten werden. Sie dürfen dieses Dokument nicht in irgendeiner Weise abändern, noch dürfen Sie dieses Dokument für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, aufführen, vertreiben oder anderweitig nutzen.

Mit der Verwendung dieses Dokuments erkennen Sie die Nutzungsbedingungen an.

#### Terms of use

We grant a non-exclusive, non-transferable, individual and limited right to using this document.

This document is solely intended for your personal, non-commercial use. Use of this document does not include any transfer of property rights and it is conditional to the following limitations: All of the copies of this documents must retain all copyright information and other information regarding legal protection. You are not allowed to alter this document in any way, to copy it for public or commercial purposes, to exhibit the document in public, to perform, distribute or otherwise use the document in public.

By using this particular document, you accept the above-stated conditions of use.

#### Kontakt / Contact:

peDOCS  
Deutsches Institut für Internationale Pädagogische Forschung (DIPF)  
Informationszentrum (IZ) Bildung  
E-Mail: [pedocs@dipf.de](mailto:pedocs@dipf.de)  
Internet: [www.pedocs.de](http://www.pedocs.de)

Mitglied der

  
Leibniz-Gemeinschaft

**Philipp Grollmann, Nikitas Patiniotis, Felix Rauner**

# **A Networked European University for Vocational Education and Human Resources Development**

Forschungsberichte 05 / 2003  
Februar 2003

**Philipp Grollmann, Nikitas Patiniotis, Felix Rauner**

**A Networked University for Vocational Education  
and Human Resources Development**

Bremen, ITB 2003  
Abteilung: Arbeitsprozesse und berufliche Bildung  
ITB-Forschungsberichte 05 / 2003  
ISSN 1610-0875

Die ITB-Forschungsberichte sollen Forschungsergebnisse zeitnah der Fachwelt vorstellen. Zur Absicherung der Qualität wird ein internes Reviewverfahren mit zwei Gutachtern durchgeführt.  
Die ITB Forschungsberichte können kostenlos von der Webseite des ITB geladen werden oder als Druckversion gegen Erstattung der Druck- und Versandkosten angefordert werden.

ITB-Forschungsberichte is a new series which serves as a platform for the topical dissemination of research results. The Quality is being assured by an internal review process involving two researchers.  
ITB Forschungsberichte can be downloaded from the ITB-Website.  
A printed version can be ordered against a small contribution towards expenses.

Herausgeber:  
Institut Technik und Bildung, Universität Bremen  
Am Fallturm 1  
28359 Bremen  
Fax: ++49(0)421 218-9009 Tel.: ++49(0)421 218-9014  
e-Mail: [itbs@uni-bremen.de](mailto:itbs@uni-bremen.de)  
[www.itb.uni-bremen.de](http://www.itb.uni-bremen.de)

Copyright IT+B Bremen, alle Rechte vorbehalten

Verantwortlich für die Reihe: Peter Kaune

Philipp Grollmann, Nikitas Patiniotis, Felix Rauner

**A Networked European University for  
Vocational Education and Human  
Resources Development**

Forschungsberichte 05 / 2003

Februar 2003

## **Zusammenfassung:**

Dieser Publikation basiert auf zwei Dokumenten, die im Rahmen der Arbeit an dem durch die europäische Kommission geförderten Projekt „Euroframe: Framework for Continuing Professional Development for VET Professionals“ entstanden sind. Der erste Teil dieses Papiers begründet den Bedarf nach einer europäischen Universität für Fachkräfte in der beruflichen Bildung und in der Personal- und Organisationsentwicklung und beinhaltet erste Vorschläge über die konkrete Ausgestaltung eines solchen Netzwerkes. Das zweite Teil liefert einen Vorschlag für ein Master-Curriculum, den Master of Professional Education (MPE), das an einer solchen Institution umgesetzt werden könnte. Beide Texte sind als Diskussionsgrundlage für die weitere Diskussion um die Professionalisierung dieses für die Wissensgesellschaft wichtigen Berufsstandes zu verstehen. Die in die beiden Papiere eingegangenen Erkenntnisse basieren – neben dem unmittelbaren Projektzusammenhang – auf einer Reihe von Forschungs- und Entwicklungsarbeiten, in denen die beteiligten Autoren mitgearbeitet haben.

---

## **Abstract:**

This publication is based on two papers which were developed in collaboration between the authors in the course of the EU-Commission funded project „Euroframe: Framework for Continuing Professional Development for VET Professionals“. The first part of this document is the presentation of ideas concerning the establishment of a Networked European University for the education and training of VET and HRD Professionals and its possible implementation. The second one is a blueprint for a curriculum of a Master Study Course on VET and HRD, the Master of Professional Education (MPE). The papers are intended to serve as an input for the further discussion concerning the professionalisation of this important occupational group in a knowledge-based economy. They are also based – besides the work on the mentioned project – on the results of a number of research and development projects in which the authors were involved.

## **Preface**

One of the leading Ideas during the longstanding collaboration between the **ITB, University of Bremen** and the **Laboratory for Sociology and Education, University of Patras** was the need for the foundation of a European University on VET and HRD aiming for the further professionalisation of the VET and HRD disciplines and its foundation through research.

Besides the discussions in the course of the LEONARDO da Vinci projects **EUROP****ROF** and **EUROFRAME**, which were built on the same ideas and co-ordinated by ITB, lay the foundation for the following memorandum and curriculum.

The two papers in this publication have been developed in the latter project in collaboration between Nikitas Patiniotis, University of Patras, Felix Rauner and Philipp Grollmann, ITB. Special thanks are due to:

Graham Attwell

Alan Brown

Peter Gerds

Peter Kaune

for giving their useful remarks and assisting us in language questions, and to all the partners who have been involved for sharing their ideas.

The aim of this document is to serve as an input for further discussions on the professionalisation of VET and HRD personell on the European and international level.

# **1 Memorandum: Establishment of a Networked European University for Vocational Education and Human Resources Development**

## **1.1 Rationale**

The Lisbon European Council summit in autumn 2000 agreed as a strategic policy goal for the next decade to transform the European Union as the most competitive and dynamic, knowledge based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion. This strategic goal has been taken up in subsequent council decisions. Global economic competition increases the pressure to produce high-quality products. High-quality products and high-quality, high-value-added work are seen as being at the core of economic success for 21st century economies. This is emphasised by the increasing importance of ICT skills and knowledge. With these challenges, education, training and human resources development has become of outstanding importance for a sustainable and competitive development of the European Union and its member states.

Research on Regional Innovation Systems has shown that technological, economic and social innovation processes are deeply embedded within regional milieus of actors and institutions. The trend of transforming colleges and institutions of training and education into regional centres of competence with a moderating and consulting function in those processes can be observed all over Europe, despite cultural and institutional diversity.

Looking at in-company organisational development and restructuring, one can also see the increasing attention which is being paid to learning processes. Training and education are more and more integrated into production and work-processes to achieve a balance between implicit experience-led learning and systematically contextualised training processes. This results in an upgrading of the sphere of direct value added work for individual learning careers. However, the sustainable exploration of learning potentials of work processes needs highly developed expertise in the optimal design of complex arrangements for teaching and learning.

In both connections, learning is seen more and more as a life-long and also 'life-wide' process, which not only takes place at the individual but also on the organisational level. Both aspects confront those who are responsible for the shaping and design of learning processes with new challenges. Their task is to equip learners with the ability for lifelong learning with meta- and self-directed-learning competencies - and to moderate and stimulate processes of organisational and regional learning.

Vocational Education and Training and Human Resources Management can be seen as one of the key professions in the 21st century. This conclusion is supported by the insights and research outcomes of the EU sponsored Leonardo da Vinci EUROPROF and EUROFRAME projects. Movements towards the professionalisation of HRD and education and training can also be observed in the Northern-American and Asian-Pacific regions.

At the European level the apparent paradox of the simultaneous convergence and divergence of education and training can be observed in a global setting often labelled as 'Globalisation and Localisation'. However, economic processes have been increasingly overcoming national borders or other barriers. Despite nationally specific features, common product and process standards are become increasingly binding.

The project of European unification is increasingly oriented towards common standards, agreements and indicators, even in areas regulated by national or federal authorities. The Bologna agreement on higher education is only one example.

For the vocational education and training and HRD professions, a networked European University could facilitate the development and setting of such standards.

A European University for VET and HRD could undertake the following tasks:

- the development of research-based professional standards for the VET and HRD profession;
- the provision of a European Masters degree on VET and HRD; Training and Education of VET and HRD-Professionals in the framework of Pan-European Standards
- the provision of student places for smaller countries;
- the creation of a centre of Excellence for the training of young researchers (PhD Programme)
- the identification of exemplary practices and innovation transfer across Europe
- the networking, capitalisation and dissemination of national and European research on VET and HRD
- the development of a platform for the European Dialogue and VET and HRD practices and policies
- The provision of Summer and Winter schools and in-service provision for VET and HRD Professionals
- the development of International Centre of Excellence, also attractive to overseas students

## **1.2 Who would be the participants?**

The master course is targeted at graduate students in Vocational Education or Human Resources Development, i.e. Teachers, Trainers, Training Managers and Educational Administrators. The minimum entry qualifications are:

- Bachelor degree or equivalent degree (a commission has to be established which decides on those issues, especially in terms of different career pathways and institutional settings in the different member states and non-formal learning accreditation)
- evidence of English skills or an alternative official community language besides mother-tongue (following existing relevant accreditation and testing systems)

The Ph.D. programme is oriented towards young researchers and will be carried by the individual institutions as well as at a graduate-college at the core institute.

The summer and winter-schools and the in-service measures follow an inclusive concept addressed towards different target groups from the field. They will be followed by the issuing of a continuing education certificate.



### 1.3 What will be taught where?

#### *Curricular Pillars of the Master Programme*

There will be three basic curricular pillars for the course of study:

- pedagogy and educational sciences;
- occupational specific subject areas
- and areas of applied specialisation.

The study programme will be modular, which allows for greater flexibility for the individual interests and needs of the students. There will be four different polyvalent qualifications.

Places of teaching will be the satellite campuses as well as the core institution (see below). The programme will be delivered through face-to-face classes as well as through the use of Information and Communications Technologies. Special emphasis will be laid on the use of ICT for the networking of students and faculty through virtual learning platforms, and the provision of both synchronous and asynchronous learning opportunities especially in areas of particular institutional specialisation.

There will be a mandatory term or internship study- or work-experience undertaken in a different country to the home institution.

*Table 1: The curricular pillars of a European Master Programme at an European University - Studying what?*

	<b>Vocational pedagogy; educational sciences and socio-economic foundations</b>	<b>Occupational subject areas</b>	<b>Domains of specialisation</b>
<b>The European Dimension</b>	Vocational Education, Training and Human Resource Development Systems	Business, economy and administration	Human Resources Development and Management
	Curriculum Development, Assessment and Evaluation	Electronics and Information Technology	International and European Vocational Education and Training practices and policies
	Vocational Pedagogy, didactics and teaching and learning technologies	Natural sciences and process engineering	Special needs and Retraining
	Philosophical foundations of Vocational Education	Health, Care and Education	Evaluation, Assessment and Organisational Development in Education
	Socialisation, Career and Occupational identity formation	Construction	
		Media...	
<b>The European Dimension</b>			

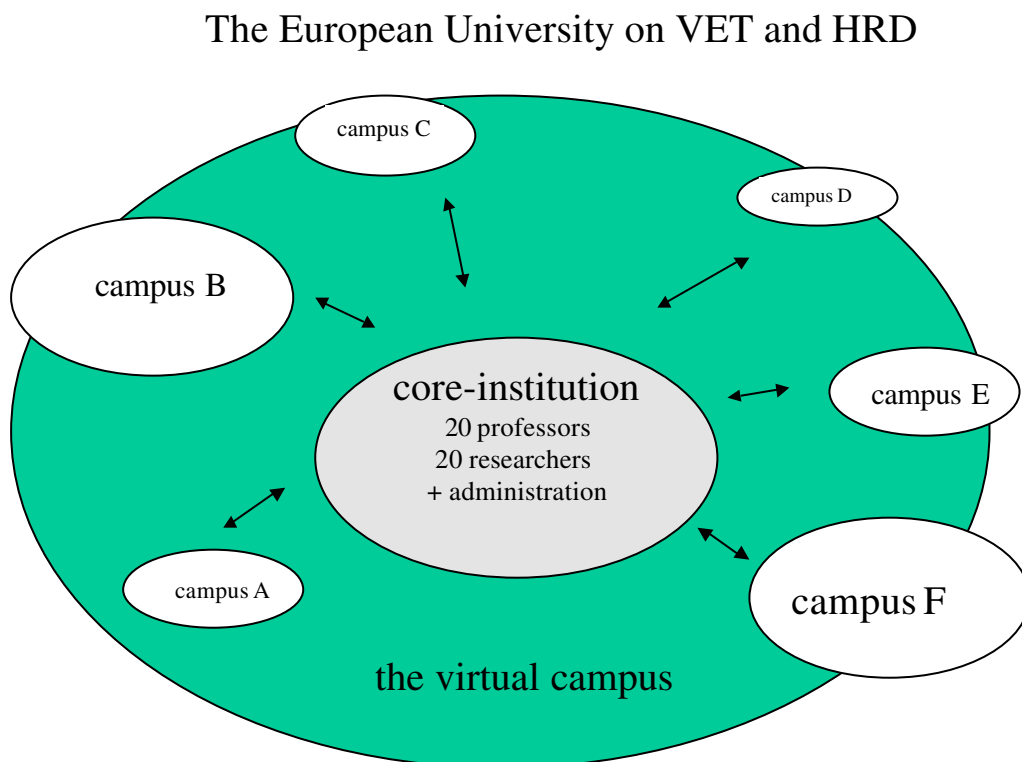
There will be a commission set up by representatives of the Campuses which regulates admission based on qualifications and work experience, in light of the needs of the par-

ticipating countries. Modules and assessment will be in line with the European Credit Transfer System (ECTS).

The European core-curriculum will secure that the European dimension goes across the different subject areas and areas of specialisation. In this framework there will be wide flexibility for the campuses based on the standards set by the commission for study course matters.

Professors, and other appropriate course directors, will have a mandate for the examination and assessment for their respective areas. The study programme will be completed through a three-months extended scientific essay. The certificates are to be issued by the core-institution.

Figure 1 *Studying where?*



#### *The doctoral programme*

Entry qualification for the doctoral programme is a Masters degree. There will be two routes to achieve the academic degree: either doing a Ph.D. Programme following the rules set by the joint academic commission at one of the local campuses or joining the three years doctoral programme at the core-institution.

#### *The Summer- and Winter-Schools*

The summer and winter-schools will be certified short-term programmes run at the European Core-institution. The programmatic focus can vary from research to methodical and organisational issues, depending on the target groups. Local campuses can gain accreditation for in-service and further education measures offered at their venues, if they meet certain criteria regulated by the study programme commission.

## 1.4 Organisational Structure of the European University on VET and HRD

The European University for VET and HRD will be organised through a network of regional campuses (within the member and candidate states). This decentralised form of organisation will ensure that different research and teaching traditions can be included and that mutual learning and innovation transfer is guaranteed. The minimum requirement will be to guarantee that study in one of the areas of specialisation is possible at the respective campus. There will have to be established a European core institution. At this institution all specialisation can be studied and it will undertake the administrative functions, such as ensuring curricular integrity and issuing certificates and degrees. The core-institution will be established following the laws and regulations of the host-country.

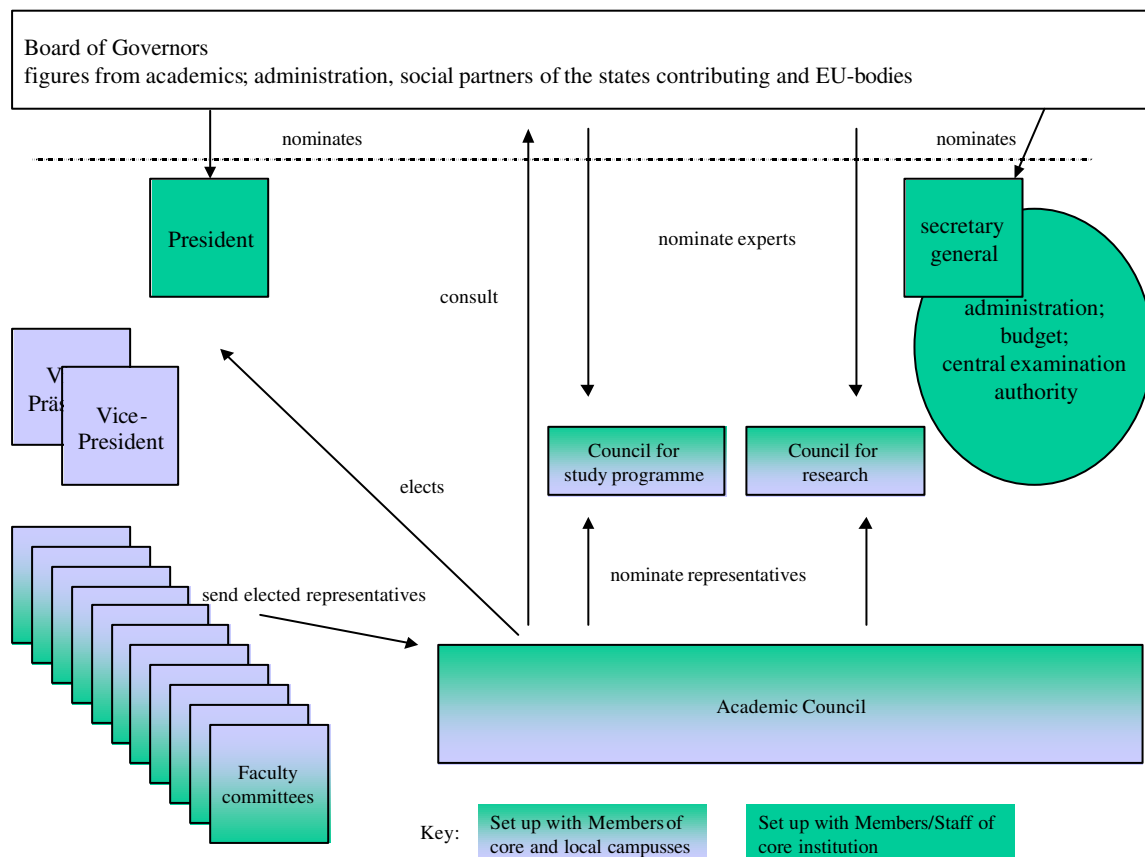
Bearing that in mind, the organisational structure of the European University for Vocational Education and Human Resources development could look as follows:

### 1.4.1 Authorities of the European University

#### *The Board of Governors*

The Board of Governors includes leading figures from administration, social partners and academics of the states which are offering a programme and the relevant European Bodies. It is vested with full authority for strategic governance of the institution. The board is responsible for ensuring that decisions of general principle, such as the Mission Statement, are implemented. It is also responsible for nominating a President, for ensuring adequate resources for the operation of the University, and for approving budgets and personnel recommendations put forward by the Academic Council. It meets once a year.

Figure 2: Organisational structure



### *The President and University Management*

The President is responsible for all operational matters, both administrative and academic (research and studies). He will be assisted by two Vice-Presidents (Presidents and Vice Presidents are elected for five-years) and supported by the Secretary General who will be the highest administrative employee of the core-institution.

University Management has to meet every six weeks, virtual and face to face meetings will alternate.

### *The Secretary General*

The Secretary General supports and assists the university management through all the financial and administrative tasks.

### *The Faculty Committees*

The Faculty Committee will consist of the professors from the local campuses and the core-institution in the respective domains of expertise and a selected student member. They develop the curricular contents for their respective subject areas. The Faculty Committees will send a elected representative to the Academic Council. The Faculty Committees will meet twice a year.

### *The Academic Council*

The Academic Council will consist of the elected representatives of the Faculty Committees and vote for the President and the Vice-President. Young researchers and students also send elected representatives. The Academic Council will meet three times a year.

### *Councils for the study programme and council for research*

Both councils will consist of nominated representatives from the Academic Council and experts nominated by the Board of Governors. The council for the study programme will draw on the expertise of the faculty councils and support the administration in terms of curricular regulation, accreditation and admission.

The council for research is set up to decide on the distribution of research resources.

## **1.5 Distribution of Funding**

The host-country of the core institution will provide for the infrastructure necessary for the technical operation and maintenance, as well as the staffing of the core Institution (administration, building etc.).

EU and Member States have to provide a budget for each of the faculty posts at the Core institution including academic and technical assistance personnel.

The chairs at the core-institution are limited to five year tenure. In case of adequate achievements in research and/or teaching, contracts can be prolonged for another five years.

The Chairs at the local Campuses will be funded through the respective hosting institutions. On a subsidiary basis there should be decreasing financing for the establishment of study programmes and faculty infrastructures.

Local Campuses can take part in university internal bidding processes for research grants. For this purpose a research budget has to be established.

## 2 Proposal for a Master Study Course Professional Education and Development (VET/HRD) MPE

Issued degree: Master of Professional Education and Development(VET/HRD)

Length of study: One year full time + Thesis (38-42 hours) or part time studies

ECTS credits: 80/86

Areas of specialisation: One out of nine vocational Disciplines  
 Human Resources Development  
 International, comparative and cross-cultural vocational education  
 Vocational Education for special needs students  
 Assessment and Evaluation

### Curriculum:

Studies of Education, VET and HRD in the framework of the Master study course Professional Education and Development (VET/HRD) MPE	11
Studies of the vocational discipline and its didactics in the framework of the Master study course Professional Education and Development (VET/HRD) MPE	12
Studies in an area of specialisation in the framework of the Master study course Professional Education and Development (VET/HRD) MPE	13
Thesis in the framework of the Master study course Professional Education and Development (VET/HRD) MPE	13

## 2.6 Studies of Education, VET and HRD in the framework of the Master study course Professional Education and Development (VET/HRD) MPE

### Modules and Units

**26 hours**

Three of the modules have to be concluded with a written assignment of 15 to 25 pages which will be assessed by the lecturer of the respective unit. One out of the Modules 2, 3 or 4 will be realised in project form and concluded with a project report. In each unit the student has to either write and present a small paper or to take part in a concluding written examination.

#### Foundational Studies

		hours	total	ECTS
<b>Module 1</b>	<b>Foundations, theories and structures of Career Education, VET and HRD (12 ECTS credits)</b>		<b>8</b>	<b>12</b>
M1-01	Foundations and theories of education, VET and HRD	2		3
M1-02	Institutional and technical pre-requisites of VET and HRD	2		3
M1-03	VET and HRD in a historical and cross-cultural perspective	2		3
M1-04a*	Learning in work-processes and working in learning-processes	2		3
M1-04b*	Introduction to HRD	2		3

\*The candidate has to choose between the two.

<b>Module 2</b>	<b>Shaping career education ( 9ECTS credits)</b>		<b>6</b>	<b>9</b>
M2-01	Development and Evaluation of vocational curricula, media and learning environments	2		3
M2-02	Career education in theory and practice: Foundations of vocational teaching and learning, innovation, development and organisation of learning-processes	2		3
M2-03	Human development, learning and education through the life-course in the framework of initial education and lifelong learning within its societal context	2		3
			<b>14</b>	<b>21</b>

#### Advanced Studies

		hours	total	ECTS
<b>Module 3</b>	<b>Teaching and learning in exemplary fields of practice ( 9 ECTS Credits)</b>		<b>6</b>	<b>9</b>
M3-01	Application of methods and techniques of educational and vocational research and development	2		
M3-02	Teaching, coaching and moderation of learning in career education and workforce development. Assessment and analysis of individual learning styles	2		
M3-03	Development and application of media and learning environments	2		

<b>Module 4</b>	<b>Management und evaluation of career education and workforce development (9 ECTS Credits)</b>		<b>6</b>	<b>9</b>
M4-01	Evaluation, measurement and exploration of educational supply and demands	2		
M4-02	HRD and organisational development in career education and workforce development	2		
M4-03	Planning and development of programmes and courses - Methods of exploring work-process-knowledge	2		
			<b>12</b>	<b>18</b>

**2.7 Studies of the vocational discipline and its didactics in the framework of the Master study course Professional Education and Development (VET/HRD) MPE**

There will be studies in the following occupational disciplines:

- Business and Administration
- Production and Manufacturing
- Electro, Electronics and Information Technology
- Process Engineering
- Health Care
- Education and Nursing
- Food and Nutrition
- Media and Design

**Modules and Units**

**12 hours**

**Foundational Studies**

		hours	total	ECTS
<b>Module 1</b>	<b>Occupational Discipline</b>		<b>6</b>	<b>9</b>
M1-01	Introduction to the occupational discipline	2		3
M1-02*	History of occupational field, standards and qualifications	2		3
M1-03*	Learning in work-processes and working in learning-processes	2		3
M1-04*	Curriculum development and occupational analysis	2		3

\*The candidate has to choose two out of three.

**Advanced Studies**

		hours	total	ECTS
<b>Module 2</b>	<b>Occupational Discipline</b>		<b>6</b>	<b>9</b>
M2-01	Hands on: Planning, realisation and assessment of a teaching unit in the occupational discipline, application of discipline specific methods, media and labs	6		9

## 2.8 Studies in an area of specialisation in the framework of the Master study course Professional Education and Development (VET/HRD) MPE

### Modules and Units

**12 (+4) hours**

If the student does not aim to enter the teaching field, he or she can select one out of four areas of specialisation (modules according to the respective regulations). Alternatives can be arranged in agreement with the master committee

### Foundational Studies

	hours	total	ECTS
<b>Area of specialisation</b>		<b>12 (16)</b>	<b>18 (24)</b>
Further studies in the occupational discipline	(+4)		3
Human Resources Development	12 (+4)		3
International and comparative vocational education	12 (+4)		3
Vocational education for special needs student	12 (+4)		3
Assesment and Evaluation	12 (+4)		3

## 2.9 Thesis in the framework of the Master study course Professional Education and Development (VET/HRD) MPE

### Master Thesis

	duration	ECTS
The student will propose a thesis' title and topic which has to be accepted by the master committee. From the date of acceptance the master thesis has to be submitted within three months	<b>3 months</b>	<b>15</b>



## Reihe I T + B - Forschungsberichte

- | Nr.   | AutorInnen / Kurztitel   |
|-------|--|
| Nr. 1 | <b>B. Haasler; O. Herms; M. Kleiner:</b> <i>Curriculumentwicklung mittels berufswissenschaftlicher Qualifikationsforschung</i><br>Bremen, Juli 2002, 3,- €, ISSN 1610-0875                         |
| Nr. 2 | <b>F. Manske; Y.-G. Moon:</b> <i>Differenz von Technik als Differenz von Kulturen? EDI-Systeme in der koreanischen Automobilindustrie</i><br>Bremen, November 2002, 3,- €, ISSN 1610-0875          |
| Nr. 3 | <b>F. Rauner:</b> <i>Modellversuche in der beruflichen Bildung: Zum Transfer ihrer Ergebnisse</i><br>Bremen, Dezember 2002, 3,- €, ISSN 1610-0875  |
| Nr. 4 | <b>B. Haasler:</b> <i>Validierung beruflicher Arbeitsaufgaben: Prüfverfahren und Forschungsergebnisse am Beispiel des Berufes Werkzeugmechaniker</i><br>Bremen, Januar 2003, 3,- €, ISSN 1610-0875 |
| Nr. 5 | <b>P. Grollmann; N. Patiniotis; F. Rauner:</b> <i>A Networked European University for Vocational Education and Human Resources Development</i><br>Bremen, Februar 2003, 3,- €, ISSN 1610-0875      |

## Reihe I T + B - Arbeitspapiere

- | Nr.   | AutorInnen / Kurztitel   |
|-------|--|
| Nr. 1 | <b>G. Blumenstein; M. Fischer:</b> <i>Aus- und Weiterbildung für die rechnergestützte Arbeitsplanung und -steuerung</i><br>Bremen, Juni 1991, 5,23 €, ISBN 3-9802786-0-3   |
| Nr. 2 | <b>E. Drescher:</b> <i>Anwendung der pädagogischen Leitidee Technikgestaltung und des didaktischen Konzeptes Handlungslernen am Beispiel von Inhalten aus der Mikroelektronik und Mikrocomputertechnik</i><br>Bremen, 1991, 3,14 €, ISBN 3-9802786-1-1 |
| Nr. 3 | <b>F. Rauner; K. Ruth:</b> <i>The Prospects of Anthropocentric Production Systems: A World Comparison of Production Models</i><br>Bremen, 1991, 4,18 €, ISBN 3-9802786-2-X   |
| Nr. 4 | <b>E. Drescher:</b> <i>Computer in der Berufsschule</i><br>Bremen, 1991, 4,67 €, ISBN 3-9802786-3-8 ( <b>Vergiffen</b> )   |
| Nr. 5 | <b>W. Lehrl:</b> <i>Arbeitsorganisation als Gegenstand beruflicher Bildung</i><br>Bremen, März 1992, 5,23 €, ISBN 3-9802786-6-2  |
| Nr. 6 | <b>ITB:</b> <i>Bericht über Forschungsarbeiten (1988-1991) und Forschungsperspektiven des ITB</i><br>Bremen, 1992, 5,23 €, ISBN 3-9802786-7-0  |

## Reihe I T + B - Arbeitspapiere

- Nr. 7** **ITB:** *Bericht über die aus Mitteln des Forschungsinfrastrukturplans geförderten Forschungsvorhaben*  
Bremen, 1992, 5,23 €, ISBN 3-9802786-8-9 (**Vergriffen**)
- Nr. 8** **F. Rauner; H. Zeymer:** *Entwicklungstrends in der Kfz-Werkstatt. Fort- und Weiterbildung im Kfz-Handwerk*  
Bremen, 1993, 3,14 €, ISBN 3-9802786 (**Vergriffen!**)
- Nr. 9** **M. Fischer (Hg.):** *Lehr- und Lernfeld Arbeitsorganisation. Bezugspunkte für die Entwicklung von Aus- und Weiterbildungskonzepten in den Berufsfeldern Metall- und Elektrotechnik*  
Bremen, Juni 1993, 5,23 €, ISBN 3-9802786-9-7
- Nr. 11** **ITB:** *Bericht über Forschungsarbeiten 1992-1993*  
Bremen, 1994, 6,78 €, ISBN 3-9802786-5-4
- Nr. 12** **M. Fischer; J. Uhlig-Schoenian (Hg.):** *Organisationsentwicklung in Berufsschule und Betrieb - neue Ansätze für die berufliche Bildung. Ergebnisse der gleichnamigen Fachtagung vom 10. und 11. Oktober 1994 in Bremen*  
Bremen, März 1995, 5,23 €, ISBN 3-9802962-0-2
- Nr. 13** **F. Rauner; G. Spöttl:** *Entwicklung eines europäischen Berufsbildes „Kfz-Mechatroniker“ für die berufliche Erstausbildung unter dem Aspekt der arbeitsprozeßorientierten Strukturierung der Lehrinhalte*  
Bremen, Oktober 1995, 3,14 €, ISBN 3-9802962-1-0
- Nr. 14** **Ph. Grollmann; F. Rauner:** *Scenarios and Strategies for Vocational Education and Training in Europe*  
Bremen, Januar 2000, 10,23 €, ISBN 3-9802962-9-6 (**Wird nachgedruckt!**)
- Nr. 15** **W. Petersen; F. Rauner:** *Evaluation und Weiterentwicklung der Rahmenpläne des Landes Hessen, Berufsfelder Metall- und Elektrotechnik*  
Bremen, Februar 1996, 4,67 €, ISBN 3-9802962-3-7 (**Wird nachgedruckt!**)
- Nr. 16** **ITB:** *Bericht über Forschungsarbeiten 1994-1995*  
Bremen, 1996, 6,78 €, ISBN 3-9802962-4-5 (**Vergriffen!**)
- Nr. 17** **Y. Ito; F. Rauner; K. Ruth:** *Machine Tools and Industrial Cultural Traces of Production*  
Bremen, Dezember 1998, 5,23 €, ISBN 3-9802962-5-3 (**Wird nachgedruckt!**)
- Nr. 18** **M. Fischer (Hg.):** *Rechnergestützte Facharbeit und berufliche Bildung - Ergebnisse der gleichnamigen Fachtagung vom 20. und 21. Februar 1997 in Bremen*  
Bremen, August 1997, 5,23 €, ISBN 3-9802962-6-1
- Nr. 19** **F. Stuber; M. Fischer (Hg.):** *Arbeitsprozeßwissen in der Produktionsplanung und Organisation. Anregungen für die Aus- und Weiterbildung.*  
Bremen, 1998, 5,23 €, ISBN 3-9802962-7-X

## Reihe I T + B - Arbeitspapiere

- Nr. 20** **ITB:** *Bericht über Forschungsarbeiten 1996-1997*  
Bremen, 1998, 6,78 €, ISBN 3-9802962-8-8
- Nr. 21** **Liu Ming-Dong:** *Rekrutierung und Qualifizierung von Fachkräften für die direkten und indirekten Prozessbereiche im Rahmen von Technologie-Transfer-Projekten im Automobilsektor in der VR China. – Untersucht am Beispiel Shanghai-Volkswagen.*  
Bremen, 1998, 6,76 €, ISBN 3-9802962-2-9
- Nr. 22** **ITB:** *Bericht über Forschungsarbeiten 1998-1999*  
Bremen, 2000, 12,78 €, ISSN 1615-3138
- Nr. 23** **L. Hermann (Hg.):** *Initiative für eine frauenorientierte Berufsbildungsforschung in Ländern der Dritten Welt mit Fokussierung auf den informellen Sektor.*  
Bremen, 2000, 7,67 €, ISSN 1615-3138
- Nr. 24** **Mahmoud Abd El-Moneim El-Morsi El-zekred:** *Entwicklung von Eckpunkten für die Berufsbildung im Berufsfeld Textiltechnik in Ägypten.*  
Bremen, 2002, 10,50 €, ISSN 1615-3138
- Nr. 25** **O. Herms (Hg.):** *Erfahrungen mit energieoptimierten Gebäuden.*  
Bremen, 2001, 7,67 €, ISSN 1615-3138
- Nr. 26** **Yong-Gap Moon:** *Innovation für das Informationszeitalter: Die Entwicklung interorganisationaler Systeme als sozialer Prozess – Elektronische Datenaustausch-Systeme (EDI) in der koreanischen Automobilindustrie.*  
Bremen, 2001, 11,76 €, ISSN 1615-3138
- Nr. 27** **G. Laske (Ed.):** *Project Papers: Vocational Identity, Flexibility and Mobility in the European Labour Market (Fame).*  
Bremen, 2001, 11,76 €, ISSN 1615-3138
- Nr. 28** **F. Rauner; R. Bremer:** *Berufsentwicklung im industriellen Dienstleistungssektor.*  
Bremen, 2001, 7,67 €, ISSN 1615-3138
- Nr. 29** **M. Fischer; P. Röben (Eds.):** *Ways of Organisational Learning in the Chemical Industry and their Impact on Vocational Education and Training.*  
Bremen, 2001, 10,23 €, ISSN 1615-3138
- Nr. 30** **F. Rauner; B. Haasler:** *Berufsbildungsplan für den Werkzeugmechaniker.*  
Bremen, 2001, 7,67 €, ISSN 1615-3138
- Nr. 31** **F. Rauner; M. Schön; H. Gerlach; M. Reinhold:** *Berufsbildungsplan für den Industrieelektroniker.*  
Bremen, 2001, 7,67 €, ISSN 1615-3138
- Nr. 32** **F. Rauner; M. Kleiner; K. Meyer:** *Berufsbildungsplan für den Industriemechaniker.*  
Bremen, 2001, 7,67 €, ISSN 1615-3138

## Reihe I T + B - Arbeitspapiere

- Nr. 33**    **O. Herms; P. Ritzenhoff; L. Bräuer:** *EcoSol: Evaluierung eines solaroptimierten Gebäudes.*  
Bremen, 2001, 10,23 €, ISSN 1615-3138
- Nr. 34**    **W. Schlitter-Teggemann:** *Die historische Entwicklung des Arbeitsprozeßwissens im Kfz-Service.*  
Bremen, 2001, 12,78 €, ISSN 1615-3138
- Nr. 35**    **M. Fischer; P. Röben:** *Cases of organizational learning for European chemical companies.*  
Bremen, 2002, 7,67 €, ISSN 1615-3138
- Nr. 36**    **F. Rauner; M. Reinhold:** *GAB – Zwei Jahre Praxis.*  
Bremen, 2002, 7,67 €, ISSN 1615-3138
- Nr. 37**    **R. Jungeblut:** *Facharbeiter in der Instandhaltung.*  
Bremen, 2002, 10,50 €, ISSN 1615-3138
- Nr. 38**    In Vorbereitung
- Nr. 39**    **P. Diebler, L. Deitmer, L. Heinemann:** *Report on skills demanded in University – Industry – Liaison (UIL).*  
Bremen, 2002, 8,67 €, ISSN 1615-3138
- Nr. 40**    **F. Manske; D. Ahrens; L. Deitmer:** *Innovationspotenziale und -barrieren durch Netzwerke*  
Bremen, 2003, 8,67 €, ISSN 1615-3138
- Nr. 41**    **S. Kurz:** *Die Entwicklung berufsbildender Schulen zu beruflichen Kompetenzzentren.*  
Bremen, 2002, 7,67 €, ISSN 1615-3138
- Nr. 42**    **ITB:** *Bericht über Forschungsarbeiten 2000-2001*  
Bremen, 2002, 6,78 €, ISSN 1615-3138

Stand: 31.01.2003

### Bestelladresse:

*Institut Technik & Bildung (ITB)  
der Universität Bremen  
- Bibliothek -  
Am Fallturm 1  
28359 Bremen  
Fax. +49-421 / 218-4637  
E-Mail: [quitten@uni-bremen.de](mailto:quitten@uni-bremen.de)*