

International framework curriculum for a master degree for TVET teachers and lecturers

Objectives

It is the common consensus of opinion that the professionalization of TVET actors within the international scientific community is of crucial importance for the pro-active development of co-operative relations; between workforce training and the innovation processes and the application and implementation of the resulting ideas from the development process.

The international framework curriculum for a Master Degree in TVET aims to define:

- A set of quality criteria for the education of teaching and lecturing professional in initial and further education and training.
- To provide a basis for future international scientific co-operation
- To provide a basis for the mutual exchange of students, lecturers and scientists.
- To provide a framework that can form a basis for the mutual approval of students' credits.

Identified needs

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 all over the world. 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 for almost every country worldwide.

Research on regional innovation systems has shown that technological, economic and social innovation processes are deeply embedded in 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 the world, despite cultural and institutional diversity. It holds for tailored courses for medium or large companies in industrialised contexts as well as for targeted skills training measures for the informal sector in the developing world.

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 instances, 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.

Worldwide roughly two thirds of the workforce is qualified at the intermediate level which corresponds to technical and vocational education and training. Vocational education and training and human resources management can be seen as one of the key professions in the 21st century. Movements towards the professionalisation education and training can be found both in developed and developing regions.

The apparent paradox of 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 have become increasingly binding. International co-operation inside multinational enterprises and between global acting companies advances to a key issue of sustainable economic success.

The implementation of an international framework curriculum for a master programme in **Technical and Vocational Education and Training** will demonstrate the following merits.

- This defined standard will establish a basis for national and international accreditation of course programmes and allows for the development of an international credit transfer system;
- It will facilitate the international exchange of students, lecturers and scientists;
- It will encourage the development of international co-operation on TVET innovation and research;
- It allows for self-sustainable and long-term development of professional capacity in TVET;
- It helps to develop TVET to become an integrated force in national and regional innovation systems.
- It helps to promote vocational disciplines which embodies gender equity/equality; intercultural understanding for student recruitment policy making processes.

Description of the master degree course

The master course is targeted at graduate students in Vocational Education i.e. teachers, trainers, and lecturers.

Issued degree: Master in Technical and Vocational Education and Training (TVET)

Length of study: 90 to 120 Credits¹ according to national regulations.

The table below shows the 12 vocational disciplines. The lists of topics that are shown in the table are open lists. Also one or the other of the topics might be incorporated into another vocational discipline according to regional or national settings, e.g. catering might be a topic in Leisure, Travel and Tourism or in Agriculture, Food and Nutrition.

The minimum **entry requirements** are degrees or equivalent competences to the Bachelor level.

It is recommended to establish at the offering institution a commission which decides on issues concerning the study course, especially in terms of different career pathways and institutional settings in the different countries and of non-formal learning accreditation.

¹ One credit is equivalent to a workload of 25 to 30 hours (according to the Bologna definition)

Vocational discipline	
Business and Administration	Production and distribution of goods Services Marketing, administration, finances, insurance Transportation, logistics, tourism ...
Production and Manufacturing	Manufacturing Mechanical engineering design Supply engineering / environmental engineering Automotive engineering ...
Civil engineering	Construction Wood Surface and coating technology ...
Electrical and Electronic Engineering and Information and Communication Technology	Production systems Building equipment Information and communication technology Media technology ...
Process Engineering and Energy	Applied sciences Energy conversion ...
Health Care and Social care	Health care Clinical care Personal hygiene Nursing ...

Vocational discipline	
Education and Culture	Child and youth care nursing education Adult education Special needs target groups Music and dance
Leisure, Travel and Tourism	Travel Sports Tourist services Catering and hospitality ...
Agriculture, Food and Nutrition	Agriculture Food production Domestic economy ...
Media and Information	Printing Electronic-advertising Electronic-customer-service Sales promotion
Textile and Design	Clothing production Fashion Interior design Art and craft
Mining and Natural Resources	Mining Oil and natural gas ...

Frame Curriculum

Studies of Education, TVET and Vocational Disciplines

39 credits

Three of the modules have to be concluded with a written assignment which will be assessed according to defined criteria. 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 either has to write and present a paper or to take part in a written assessment.

Foundational studies

		credits
Module 1	Foundations, theories and structures of education, TVET and HRD	12
M1-01	Foundations and theories of education, TVET and HRD	3
M1-02	Institutional and technical pre-requisites of TVET and HRD	3
M1-03	TVET and HRD in a historical and cross-cultural perspective	3
M1-04	Learning in work-processes and working in learning-processes	3

Module 2	Shaping TVET connected to the vocational discipline	9
M2-01	Development and evaluation of vocational curricula, media and learning environments	3
M2-02	TVET in theory and practice: Foundations of vocational teaching and learning, innovation, development and organisation of learning-processes	3
M2-03	Human development, learning and education in the framework of initial education and lifelong learning within its societal context	3

Advanced Studies

		credits
Module 3	Teaching and learning in exemplary fields of practice	9
M3-01	Application of methods and techniques of educational and vocational research and development	3
M3-02	Teaching, coaching and moderation of learning in career education and workforce development. Assessment and analysis of individual learning styles	3
M3-03	Development and application of media and learning environments	3

Module 4	Management und evaluation of TVET and workforce development	9
M4-01	Evaluation, measurement and exploration of educational supply and demands	3
M4-02	HRD and organisational development in TVET and workforce development	3
M4-03	Planning and development of programmes and courses - Methods of exploring work-process-knowledge	3

Studies of the vocational discipline and its didactics

18 credits

Foundational studies

		credits
Module 5	Vocational Discipline I	6
M5-01	Introduction to the vocational discipline, history of the vocational field, standards and qualifications	3
M5-02	Occupational analysis and Curriculum development	3

Advanced studies

		credits
Module 6	Vocational Didactics in the Discipline I	12
M6-01	Hands on planning, realisation and assessment of a teaching unit in the occupational discipline, application of discipline specific methods, media, and practical sessions.	9
M6-02	Learning in work-processes, occupational and work process studies and curriculum development	3

Further studies

18 credits

		credits
Module 7:	Area of specialization in vocational discipline (working with specific research and development methodologies related to vocational disciplines)	18

18 credits

		credits
Model 8:	Area of specialization in vocational pedagogy: <ul style="list-style-type: none">● Human resource development● International, comparative and cultural studies on TVET● Vocational Education for target groups with special needs● Assessment and evaluation	18

Thesis

15 credits

The student will propose a thesis' title and topic which has to be accepted by the Master's Committee. From the date of acceptance the Master's thesis has to be submitted within three months

		credits
Thesis	Individual topic	15

Practical studies

15 credits

		credits
Practical Studies	Planning and organisation of learning, teaching and training	15

Organisational requirements

The Master Study Course will be run by a higher education institution or a consortium of such institutions, which is entitled to issue doctoral degrees under the regulations of the respective country.

Generally, to run master degree courses will develop (will be connected with) a certain amount of research capacity and a certain quality of research capabilities at the respective institutions. The same holds for the qualification of teaching personnel.

It is recommended, that several related occupational disciplines/domains are offered at an organisational entity, in order to assure quality by synergies.

International research cooperation has to be incorporated into the running of the course.