

# UNIQUE

## University Quality Exchange

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# Competence Based Teaching

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**FH JOANNEUM**  
University of Applied Sciences

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right to education

  
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# Competence Based Teaching

## Questions and Aims:

**Why do students need it ? - What is it ? - How does it work ?**

"With labour markets increasingly relying on higher skill levels and transversal competences, higher education should equip students with the advanced knowledge, skills and competences they need through their professional lives."

(The Bologna Process 2020)

# What is it?



# What is a competence?

The International Board of Standards for Training and Performance Instruction (IBSTPI) defines a competence as **“a knowledge, skill, or attitude that enables one to effectively perform the activities of a given occupation or function to the standards expected in employment”**

- A knowledge, skill or attitude
- to effectively perform
- to the standards expected in employment

# What is a competence?

A competence has three states in time:

Before teaching starts it is an **objective**.

During teaching it is a **learning activity** reference.

After teaching it is a **learning outcome**.

The description of the competence stays the same throughout the whole life cycle.

- E.g.: Independently gather and select sources and relevant information to develop original research.

# Specific Competences

Specific competences are those, which **should be possessed by those students which studied the programme**, but not by students of other fields of study.

Specific competences **“belong” to a field of studies** and students of this field can be discerned from other students by possessing these specific competences.

Specific competences strongly depend on the field of study.

# Examples for specific competences

Interpret visual and aesthetical elements of architectural design language, such as rhythm, system of proportion, scale, color harmony and visual perception.

(Architecture)

Implement methods and techniques for correct examination of patients with impaired locomotors apparatus in physiotherapy.

(Physiotherapy)

Identify key properties and important factors for cultivation of arable plants and vegetables.

(Agroeconomy)

# General Competences

General competences are those, which **should be possessed by all alumni (or students) of an university.**

General competences do **not “belong” to a field of studies, they are common to all students of an university.**

These are the so called “soft-skills” which many employers are looking for and which many universities put into their diploma supplements.

Example:

**Teamwork and Relationship Building** (i.e., ability to work in teams and to utilize appropriate interpersonal skills to build relationships with colleagues, team members and external stakeholders)



# Competence levels

Most competences need to be developed over time, they are learned step by step. To simulate this process we use **competence levels**

## Gather and select information efficiently

- Independently select (with a plan of one's own) relevant information from a specific source (text, image, video) and with a well-defined objective.
- Select relevant information from pertinent sources with a well-defined objective.
- Independently select sources and relevant information, in one's own area of knowledge, to achieve specific objectives.
- Independently select sources and relevant information to achieve any type of objective in any area of knowledge.
- Independently gather and select sources and relevant information to develop original research that will provide new knowledge in one's own area of specialization.

# Dublin Descriptors

Define the level of competence / qualifications students should have acquired when they have reached a certain academic level.

**Students at entry level should:**

... have the ability to identify and use data to formulate responses to well-defined concrete and abstract problems;

**Students at Bachelor level should:**

... have the ability to gather and interpret relevant data (usually within their field of study) to inform judgements that include reflection on relevant social, scientific or ethic issues;

**Students at Master level should:**

... have the ability to integrate knowledge and handle complexity, and formulate judgments with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements;

# The core of the concept



# Remember:

A competence has three states in time:

Before teaching starts it is an **objective**.

During teaching it is a **learning activity** reference.

After teaching it is a **learning outcome**.

The description of the competence stays the same throughout the whole life cycle.

- E.g.: Independently gather and select sources and relevant information to develop original research.

# Assigning learning activities

After the competence matrix has been set up, each professor, teaching a course, has the task **to develop learning activities** which allow to teach the connected general and specific competences (at the specified level).

E.g.: A course might be connected to (among others):

- Prepare and give presentations (oral or written) in English about one's own area of knowledge.
- Be able to make arrangements to ensure reliability and safety of mechanical engineering production, its stable operations based on advanced systems and international standards

The development of an teaching activity, which will include a student presentation (in English) about a topic connected to the specific competence involved, is an obvious choice, but by far not the only one.

# Assessment

From the various learning activities, **one or several are selected as assessment activities**, which are then graded. Usually the assessment activities and the connected assessment key are defined in the syllabus and provided to the students before the course starts:

e.g.

30% Seminar paper.

30% Presentation of the paper in English.

40% Analysing a case in final exam.

# Assessment

Each of this activities **could be connected to one or several competencies**. For the example above, the

Presentation of the paper in English (30%)

Could include a general competence “English Language” and a specific competence “Reliability and Safety”. If the learning activity was designed correctly each competence can be graded.

E.g.:

Quality of language and presentation (max. 15pts)

Quality of research and correctness of information (max. 15pts)

# Assessment

**The grade of the course** will be calculated as usual, by summarizing the points the student reached in diverse assessment activities.

Additionally it is possible to **grade a general or specific competence** by summarizing all the points earned in that competences (from different courses) and in this way achieving a grade for the competence.

E.g.: English language competence was graded in three courses. A maximum of 50pts could have been reached. A student reached 14+14+19 (=47pts), an excellent result.

Collecting this information allows to define a diploma supplement, in which general competences of the student could be mentioned.



# ECTS



# ECTS

The European Credit Transfer and Accumulation System (ECTS) is a tool that helps to design, describe, and deliver study programmes and award higher education qualifications. The use of ECTS, in conjunction with outcomes-based qualifications frameworks, makes study programmes and qualifications more transparent and facilitates the recognition of qualifications.

# ECTS credits

ECTS credits are based on the workload students need in order to achieve expected learning outcomes. Learning outcomes describe what a learner is expected to know, understand and be able to do after successful completion of a process of learning. They relate to level descriptors in national and European qualifications frameworks.

Workload indicates the time students typically need to complete all learning activities (such as lectures, seminars, projects, practical work, self-study and examinations) required to achieve the expected learning outcomes.

# ECTS recognition and transfer

60 ECTS credits are attached to the workload of a fulltime year of formal learning (academic year) and the associated learning outcomes. In most cases, student workload ranges from 1,500 to 1,800 hours for an academic year, whereby one credit corresponds to 25 to 30 hours of work.

Credits awarded in one programme may be transferred into another programme, offered by the same or another institution.

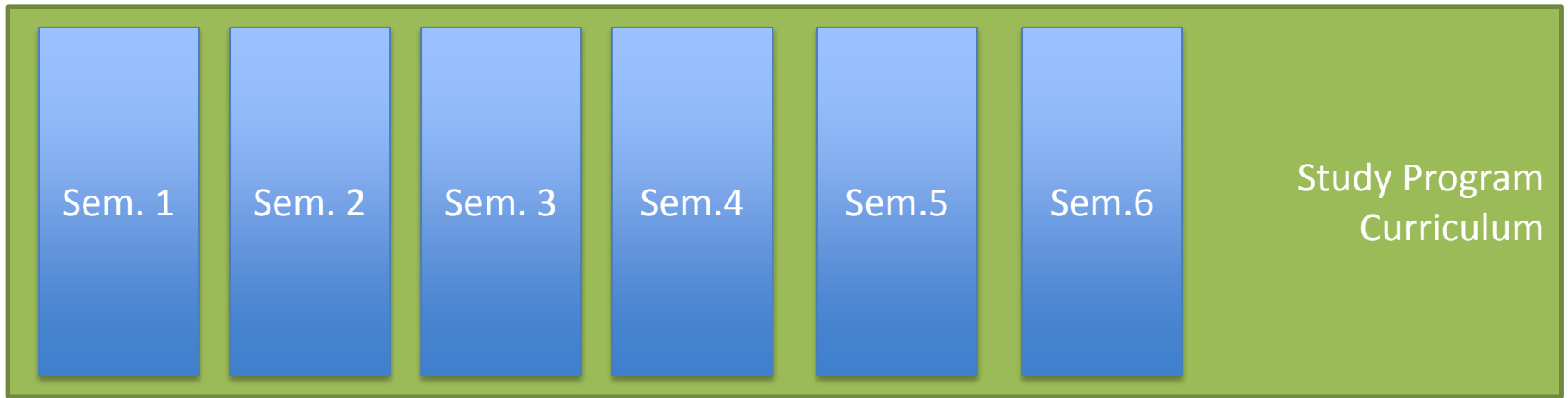
Credit transfer and accumulation are facilitated by the use of the ECTS key documents (Course Catalogue, Student Application Form, Learning Agreement and Transcript of Records) as well as the Diploma Supplement.

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# Hands on information



# Study program components



Each study program has several semesters, in each semester there are several courses, which are described in syllabi. In each syllabus you will usually find the workload defined in ECTS (roughly 25 to 30 hrs workload per ECTS). Usually you will find all syllabi on the university website.

# Lectures and other stuff in a curriculum

**Orientation courses:** I explain the most basic elements

**Lectures:** I teach, you listen.

**Tutorials:** Someone else (a good student) explains what I was teaching.

**Exercises:** I show you how it is done, you try to do the same.

**Seminars:** I introduce you to a topic, we work and discuss on it. Usually you write a paper.

**Research seminars, Repititorium, Discussion courses (colloquium), Internships**

# Requirements in class and our of class

Participation in class is sometimes mandatory, sometimes not. Make sure you know. Part of your points might very well depend on „in class participation“ if this is the case, you will for sure loose those points if you do not show up.

Usually out of class tasks will require some sort of deliverable (a seminar work, a presentation, an upload of an assignment). Grading is usually based upon the quality of those deliverables. Deadlines are usually rather strict.

Working in teams is usually taken quite serious and often the one or other mechanism (e.g. protocolling activities) is involved in teamwork. Make sure to know about how your individual contribution will be graded.



# Workload and assessment

The complete workload of a student should, in average be 25-30hrs per ECTS. Usually requirements for successfully completing a course are found in the respective syllabus.

A part of those will be done in class, the remaining part is foreseen for out of class activities.

Usually the workload and the amount of points you can get for the respective learning assignement are directly connected.

# Consultation and counseling

Vastly different from university to university. Generally the smaller the university the more consultation and counselling you can receive.

Before asking for counselling in any matter make sure that you are well prepared and have done your own work.

Make sure to follow the usual procedures.

If you have any questions about an exam or grading, you can always ask for an explanation.

Professors and Lecturers are responsible for teaching. They will usually care little about your own personal problems. International offices will usually be more helpful with those.

# Exams and Exam Dates

Exact rules for examinations are usually written in an examination guideline. If you do not get it, ask your fellow students about how things are really handled.

Usually you have three tries to succeed at an exam, the third being done in front of a commission.

You might have only one or (especially in larger universities) several possible dates for a try.

Inscribing for an exam and not showing up will result in a negative grade.

Written exams are usually done at a specific time (with or without you). Some universities will close doors when the exams begin and only open them again, when the exam is over. Often leaving the exam early or starting late is impossible.

If you retake an exam the new grade (even if the old one was better) will be valid.

# Student Assessment

Different scales are used throughout Europe. Usually they are based on a 100 point or percentage scale. Transfer between different scales will usually be done by using the percentage scale.

For making sure that your grade is recognized back home, try to also get the score (0-100) and not only the grade.

Grading systems are massively different. Make sure to understand it before doing exams.

# How to survive in a competitive system

- „When in Rome do as the Romans do.“
- Make sure to co-operate with your fellow students. Co-operation is a two way principle.
- Make sure to know what you are allowed to do, supposed to do and definitely not supposed to do.
- Go an extra mile. Do something not everyone is doing. Stick out. Get involved.
- Show interest and commitment, the professor who does not like committed students is rare...

# Types of assessment

## Written exams

- test
- case

## Verbal exams

- test
- presentation

## Project work

## Seminar papers

# The good, the bad & the ugly

- Punctuality
- Teamwork
- Participation
- Honesty
- Clarity
- Learning from someone else
- Too late
- Minimalist
- Leaning Back
- „Looking“
- Unclearness
- Copying from someone else
- Non delivery
- Exploitation
- Not showing up
- Dishonesty
- Plagiarism
- Stealing results

# Thank you very much!

Rupert Beinhauer  
FH JOANNEUM  
International Management  
Eggenberger Allee 11  
8020 Graz

0043 316 5453 6822  
rupert.beinhauer@fh-joanneum.at



# Erasmus Key Action 3



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Project Management:

FH JOANNEUM: Coordinator *Claudia Linditsch, MA*

**FH JOANNEUM**  
University of Applied Sciences

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**Aston University**  
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