HERE seminar “Modularization of curriculum”

Venue: Rectorate of the University of Montenegro
April 26, 2016

9.00-9.30 Registration of participants
9.30–9.50 Opening session
Rectorate of the University of Montenegro, representative
Vanja Drljević, National Erasmus+ Coordinator

9.50–10.05 Modularization of curricula in Montenegro from the prospective of legislator, Ministry of Education representative

10.05–10.25 Current situation with respect to the modularization of curricula at UoM, Prof. Aleksandar Vujović, University of Montenegro, Center for Teaching and Quality Control

10.25–10.55 Modularization at private universities in Montenegro, tbc

10.55–11.25 Modularisation in the EHEA (Learning and Teaching), Prof. Volker Gehmlich, Fachhochschule Osnabrück–University of Applied Sciences

11.25–11.40 Discussion

11.40–11.55 Modularisation in the EHEA (Learning Outcomes and Assessment), Prof. Volker Gehmlich, Fachhochschule Osnabrück–University of Applied Sciences

11.55–12.25 Discussion

12.25–12.45 Coffee break

12.45–13.15 Modularisation in the EHEA (ECTS and recognition), Prof. Volker Gehmlich, Fachhochschule Osnabrück–University of Applied Sciences

13.15–13.45 Modularisation in Practice (Examples and Procedures), Prof. Volker Gehmlich, Fachhochschule Osnabrück–University of Applied Sciences

13.45–14.05 Discussion

14.05–15.05 Group work - How to prepare a module in different disciplines

15.05–15.30 Discussion

15.30–16.00 Conclusions and recommendations

16.00–17.00 Lunch
Modularisation in the EHEA
Session 1: Learning and Teaching
HERE seminar “Modularisation of curriculum”
Podgorica April 26 / 2016
v.gehmlich@hs-osnabrueck.de
Put into Practice: Learning Chain

Learning Space
1st Session: Modularisation, Learning and Teaching
2nd Session Module Learning Outcomes Assessment
3rd Session ECTS and Recognition, Credits
4th Session Examples and Procedures

Programme Profile Learning Outcomes

Change of Paradigm

Learner’s Profile Credits

General / Vocational Education and Training

- Labour Market
- Qualifications frameworks
- Strategy
- Research

Communication

Internal Quality Management (Credits)
External Quality Assurance (Credits)
Definition (ECTS User’s Guide)

Educational Component

– Most general term for course, unit, module...

Module

– A course unit in a system in which each course unit carries the same number of credits or a multiple of it
Module

• **Scope**
  A module comprises a self-contained, formally structured learning process with theme oriented learning and teaching.

• **Prerequisite**
  Defined coherent learning outcomes, predefined volume of study with required workload, expressed in credits, with unambiguous criteria of assessment

**Facilitate**

Modularisation
Profile description of individual study-programmes,
Differentiated study-programmes on one defined level.
Module Template I (2 pages max.)
(Provide details of the module for students, staff and quality assurance purposes)

Short Module Details
1. Full Module Title
2. Module Code
3. Module Level
4. ECTS credits
5. Length
6. Module leader
7. Host Course
8. Module status (obligatory/option)
9. Pre-requisites (if appropriate)
10. Co-requisites (if appropriate)
11. Access restrictions
12. Assessment
13. Date validated
Module Template 2 (2 pages max.)
(Provide details of the module for students, staff and quality assurance purposes)

14. Module aims (3-6 aims the professor hopes to achieve)
15. Learning outcomes (4-8 LO – perspective of student: „On successful completion of this...“)
16. Indicative syllabus content (brief description of the module content)
17. Learning delivery (teaching/learning methods + study mode)
18. Assessment rationale (explanation of the assessment methods)
19. Assessment criteria (generic assessment criteria)
20. Assessment weighting (weighting of each assessment component)
21. Essential reading (list of key texts, web reference, journals...)
22. Intranet web reference (if applicable)
23. Validation date (if applicable)
Objectives of Modularisation

• **To improve what is good!**
  – Increase study success-rate
    • Motivation of learners and teachers
    • Learning culture
  – Improve transparency / improved understanding
    • Mobility (vertical, horizontal, lateral)
    • Recognition (APL, APEL)
    • Counting towards the degree
  – **Simplify comparability / Readability / Profiling**
    • Institutional
    • National
    • International
  – **Increase „employability“**
    • Education
    • Continuing education
    • Professional development
Module

• Additionally, modules facilitate/allow for

  Programme design (Modularisation)
  Profile description of individual study-programmes
  Polyvalency (on a defined level)
  Recognition as a stand-alone
  Reduction of the number of examinations
  Learning outcomes oriented assessment
This is an organisational chart that shows the different parts of a cow. In a real cow the parts are not aware that they are parts. They do not have trouble sharing information. They smoothly and naturally work together, as one unit. As a cow. And you have only one question to answer.

Do you want your organisation to work like a chart? Or a cow?

(Anderson & Lemke, NY, advertisement for SAP, Canada)
Characteristics

• **Quantitative**
  – Minimum size: 5 or 6 or a multiple (HS Osnabrueck)
  – Maximum size: 30 (Master thesis, work placement...)

• **Qualitative**
  – Defined learning outcomes, of which the volume and respective time of learning makes up the workload, being expressed by credits.
  – Evaluation has to prove the
    • qualitative learning outcomes
    • quantitative „learning windows“
  – Evaluation refers to learning, teaching and learning progress (examinations)
Evaluation is not always popular - Point of time/sequence are important!
Good Practice

– Modules are not a prerequisite for introducing ECTS; however, they facilitate it
– A module carries credits as a whole. It is impossible to receive credits for part of a module
– Recognition refers to whole modules, not part of them
Good Practice

• It is recommended:
  • A module should stretch across a defined period of time
  • Preferably not longer than 1 semester
  • A module should neither be „too small“ nor „too big“
  • Proposal:
    – Not less than 5 Credits
    – Per module 5 Credits or a multiple
Types of Modules (Usage)

- Compulsory-, Elective-, Optional modules
- Basic (basics of the science)
- Profiling (Specialisation)
- Structuring (Mobility window, Placement)
- Platform building (for several study-programmes in a faculty)
- Polyvalency (for several study-programmes at the institution)
Activity 1
Structuring of Modules
Programme Design
Step to be taken: Raise questions

Key questions:

1. Which syllabi are the essential characteristics of this degree programme? Without which module would no one consider this as the identified degree programme?

Conclusion: Core modules
2. Which areas could be identified – vertically, horizontally or laterally – for further useful studies (profiling)?

(vertical: specialisation in a narrow sense = deepening; backward/forward integration; horizontal: interdisciplinary = enlargement; lateral: unrelated diversification)

Conclusion: Specialisation modules / major / minor / electives / options
3. What else is needed to understand issues, identify and to express them in various ways?

To which extent can a quantitative approach help to explain these issues?

**Conclusion:** Support modules

4. How can I learn and organise myself?

How can I present / express best what I want to say

**Conclusion:** Organisation and Communication modules
STEP (CONT.)

5. *How does theory relate to practice?*
   *How can I relate theory to practice?*
   *What are the methods?*

Conclusion: Transfer modules
RESULT OF STEP TO BE TAKEN

- Structuring of degree programmes into **Core modules**

Objective of Learning Outcomes:

- Knowledge Acquisition and Widening

- Specialisation modules (level dependent)

Objective of Learning Outcomes:

- Knowledge Acquisition and Deepening
RESULT OF STEP

Support modules
Organisation and communication modules
Transfer modules

Objective of Learning Outcomes:

Methodology: Skills / Competences to learn and transfer
Knowledge acquisition (independent learning), developing and creating
Change of Perspective
Student-centred
Learning and Teaching
Swap sides
Change of time

»zeitenwechsel«
• Learner-centred learning focuses much more on the relationship between learning, teaching and assessment.

• Learning outcomes are the first logical step towards a learner-centred learning and teaching and have an impact on all levels and types of learning.
Student-Centred Learning (SCL) is a process of qualitative transformation for students and other learners in a learning environment, aimed at enhancing their autonomy and critical ability through an outcome-based approach.

**Key elements are:**

- Reliance on **active** rather than passive learning
- Emphasis on **critical and analytical** learning and understanding
- Increased **responsibility and accountability** on the part of the student
- Increased **autonomy** of the student
- A **reflective approach** to the learning and teaching process on the part of both the student and the teacher
In outcome-based education the educational outcomes are clearly and unambiguously specified.

These determine the curriculum content and its organisation, the teaching methods and strategies, the courses offered, the assessment process, the educational environment and the curriculum timetable.

They also provide a framework for curriculum evaluation.

(Harden et al., 1999a)
What to do to pass the driving test?:
(remember: The Roundabout)

Starting Point:

• Students today are neither better nor worse than in the past. They have different:
  – backgrounds
  – socialisation
  – interests

• And there are many more students of an age-group (~5% versus 30-50% in ~60 years), fortunately

• Overall objective: learn to learn

• Widening of term: from student to learner
  – Students are involved in a formal learning process
  – Learners are involved in a learning process
## Learning Culture

<table>
<thead>
<tr>
<th>Teacher centred</th>
<th>Student centred</th>
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</thead>
<tbody>
<tr>
<td><strong>Principal guideline:</strong></td>
<td><strong>Principal guideline:</strong></td>
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<tr>
<td>selecting</td>
<td>supporting</td>
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<td>stressing</td>
<td>encouraging</td>
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<td>directing</td>
<td>respecting</td>
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<tr>
<td>learn for the exam</td>
<td>learn for yourself</td>
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</tbody>
</table>

**Find out what a student does not know**
Exam is the main thing

**Find out what the student knows and is able to do**
Exam is a by-product
What to do to pass the driving test?:

• Information about the student within the rules of data protection
  – Knowing more about
    • Background (prior learning, work experience)
    • Expectations
    • Performance
    • Social environment / integration (accommodation, week-ends, festivities...)
What to do to pass the driving test?:

• Alignment of programme profile – learning outcomes – forms of learning, teaching and assessment (constructive alignment)
Principles for learning and teaching

General Principles - ECTS User’s Guide 2015:

• Open Dialogue and Participation
  – All Stakeholders

• Transparency and Reliability
  – Course Catalogue

• Consistency
  – Constructive Alignment

• Flexibility
  – Personal Learning Pathways
Questions left

• Still questions?
  – Write them down for the discussions to come today
  – Write them down and send them to me (v.gehmlich@hs-osnabrueck.de)
Modularisation in the EHEA
Session 2: Module Learning Outcomes and Assessment
HERE seminar “Modularisation of curriculum”
Podgorica April 26 / 2016
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Learning Space
1st Session: Modularisation, Learning and Teaching

2nd Session Module Learning Outcomes
Assessment

3rd Session ECTS and Recognition, Credits

4th Session Examples and Procedures
catch up

www.austrian.com
Challenge

• Qualifications have to be characterised by **Learning Outcomes** which are described unambiguously to allow for:
  – Evidence of compatibility between the various national, sectoral... and European qualifications frameworks
  – Reliable validation of national frameworks
Goal: **Qualification Template 1**

(Handbook: essential information for student, staff and quality assurance purposes and other stakeholders)

1. Introduction to the discipline and qualification (brief -1 to 2 paragraphs)
2. Rationale statement (explanation of the uniqueness – 1-2 paragraphs)
3. **Overall qualification learning outcomes (Profile – 4-8)**
   - 3.1 Reference to the NQF (identification of level and its description)
   - 3.2 Reference to the European Qualifications Framework for Higher Education
4. Structure of the qualification – include information on:
   - 4.1 List of core and subject specific option modules (include module codes)
   - 4.2 Explanation of module relationships (levels, pre-requisites, co-requisites and credit values, diagram)
   - 4.3 Free choice module information (if applicable)
   - 4.4 Progression routes within the qualification (if applicable)
   - 4.5 Information on module scheduling (if appropriate)
Qualification Template 2

5. Teaching and learning methods statement (overall rationale of approach)
6. Assessment rationale (overall logic and range of assessments employed)
7. Generic assessment criteria (expressed in generic learning outcomes)
8. Learning resources (brief description of subject specific resources)
9. Employability and transferable skills (if appropriate, link to university policy via matrix)
10. Student support (academic and pastoral tutoring arrangements)
11. Linkages to external reference points (Qualifications Frameworks)
**Context**

- *Learning outcomes* are concerned with the *achievements of the learner* rather than the intentions of the teacher (expressed in the aims of a module or course). They can take many forms and can be broad or narrow in nature (Adam, 2004).

- Learning outcomes and *‘aims and objectives’* are often used synonymously, although they are not the same.

- Adam (2004) notes that “*aims*” are concerned with teaching and *the teacher’s intentions* whilst *learning outcomes* are concerned with learning’.

- Moon (2002) suggests that one way to distinguish aims from learning outcomes is that *aims* indicate the *general content, direction and intentions behind the module from the designer/teacher viewpoint*. 
Learning Outcomes
are statements of what the individual knows, understands and is able to do on completion of a learning process.

The achievement of learning outcomes has to be assessed through procedures based on clear and transparent criteria.

Learning outcomes are attributed to individual educational components (Step 2) and to programmes as a whole (Step 1).

They are also used in European and national qualifications frameworks to describe the level of a specific qualification.
Activity 2

Learning Outcomes

How to write programme and module LO
How to write Learning Outcomes

From the definition of LO it becomes obvious, the focus is
• on the learner
• His/her ability to do something

While aims and objectives of teaching are e.g. to know, understand, be familiar with

**Learning** focuses on the ability of the learner to define, list, recall, analyse...
Well formulated learning outcomes comprise at least three essential elements (see Moon 2004):

1. Use an active verb to express what learners are expected to know and be able to do (e.g. graduates can „describe“, „implement“, „process“, „plan“…)
2. Specify to what this outcome refers to (object, skill, e.g. Can explain the „function of hardware components“; can present the „design of a living room by hand“)
3. Specify modality to proof the achievement of learning (e.g. „to give an overview over the materials most often used in electrical engineering research design by applying scientific methods“, etc...
Example: Postgraduate Computer Science Degree (Declan Kennedy)

On completion of this programme the student will be able to:

- Perform problem solving in academic and industrial environments
- Use, manipulate and create large computational systems
- Work effectively as a team member
- Organise and pursue an scientific or industrial research project
- Write theses and reports to a professional standard, equivalent in presentational qualities to that of publishable papers
- Prepare and present seminars to a professional standard
- Perform independent and efficient time management
- Use a full range of IT skills and display a mature computer literacy
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<td>Work</td>
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<td>Use, display</td>
<td>IT skills, computer literacy</td>
<td>mature</td>
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Example: undergraduate engineering degree

On completion of this programme, the student will be able to:

• Derive and apply solutions from knowledge of sciences, engineering sciences, technology and mathematics
• Identify, formulate, analyse and solve engineering problems
• Design a system, component or process to meet specific needs and to design and conduct experiments to analyse and interpret data
• Work effectively as an individual, in teams and in multi-disciplinary settings together with the capacity to undertake lifelong learning
• Communicate effectively with the engineering community and with society at large
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<td>from knowledge of sciences, engineering sciences, technology, mathematics</td>
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<td>meet specified needs</td>
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<td>Conduct</td>
<td>Experiments data</td>
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<td>Analyse, interpret</td>
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<tr>
<td>Work</td>
<td>Engineering community, with society at large</td>
<td>Effectively</td>
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<tr>
<td>Communicate</td>
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<td>effectively</td>
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### Example of Mapping

<table>
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<tr>
<th>PRLO</th>
<th>EduComp 1</th>
<th>EduComp 2</th>
<th>EduComp 3</th>
<th>EduComp 4</th>
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<td>Analyse Solve</td>
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<td>x</td>
<td>x</td>
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<tr>
<td>Design</td>
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<td>x</td>
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<tr>
<td>Conduct, Analyse</td>
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<tr>
<td>Work</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Communicate</td>
<td>x</td>
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<td>x</td>
<td>x</td>
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**NB:**
PRLO = Programme Learning Outcome
EC   = Educational Component 1, 2...etc....
“If you can’t fly, then run, if you can’t run, then walk, if you can’t walk, then crawl, but whatever you do, you have to keep moving forward.”

— Martin Luther King Jr.
Test: Before your meal

According to EQF (LLL):

Learning Outcomes: Burger

Knowledge
• Layers

Skills
• Getting into your mouth

Competence
• Responsibility for your stomach
According to HEA-QF (Dublin Descriptors):

**Knowledge**
- **Layers**

**Applying knowledge**
- **Getting into your mouth**

**Making judgements**
- **Hmmmmm (?)**

**Communicate**
- **Friends...**

**Learn to learn**
- **Criteria for (fast)food**
Bloom’s Taxonomy
No categorisation
Presents processes of thinking hierarchically.
Each level of the hierarchy is determined by the ability of the learner to operate on this level or the ones below.

Cognitive Domaine

1. Knowledge
2. Comprehension
3. Application
4. Analysis
5. Synthesis
6. Evaluation
Examples of verbs to assess knowledge

Arranged, collect, define, describe, duplicate, enumerate, examine, find, identify, label, list, memorise, name, order, outline, present, quote, recall, recognise, recollect, record, recount, relate, repeat
Activity 3
Competence-oriented Assessment

How to assess?
ECTS User’s Guide 2015: What is new?

Structural Changes
Hardly noticed as not part but application of ECTS:

• Short Cycle is part of the European Qualifications Framework for Higher Education
  In an 8-level framework like Montenegro it would be level 5

But:
• Not sure what the impact will be
<table>
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<tr>
<td>1. EHEA</td>
<td>1. Key Features</td>
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<tr>
<td>2. Key Features</td>
<td>2. EHEA – Student centred Learning, Outcome approach: APL/APEL; World of Work; Mobility</td>
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<tr>
<td>3. K.F. explained</td>
<td>3. ECTS for Programme Design, Delivery, Monitoring</td>
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<td>4. Implementing in HE</td>
<td>4. ECTS for Mobility, Credit Recognition Grade Distribution - Grade Conversion</td>
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<td>6. ECTS and QA</td>
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<td>7. Further Reading</td>
<td>7. Supporting Documents</td>
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<td>8. Glossary</td>
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<td>1. Learner´s Perspectives</td>
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<td>2. Guidelines for Recognition: Bilateral Agreements</td>
<td>2. Examples: Grade Conversion</td>
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<tr>
<td>3. Grading Table</td>
<td>3. Recommended Reading List</td>
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<td>4. Key Documents</td>
<td>4. Examples: Programme Profiles</td>
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<tr>
<td>5. National Regulations</td>
<td>5. Examples: Learning Outcomes</td>
</tr>
</tbody>
</table>
Essential Question of Examinations

Can the exam **validate** the achievement of the learning outcomes?

At the level of
- Student
- cohort
- moving cohort
- external
Objectives of competence-oriented assessment

SMART
• Specific
• Measurable
• Adequate
• Relevant
• Timely

MEANS
• Unambiguous
• Feasible
• Acceptable
• Realistic, competence oriented
• In which / at which time

Potential Conflicts
Potential Conflicts

Qualifications

• Qualifications framework
  – Levels
  – Parallel (professional / academic)

Bundle of learning outcomes

• Sum of learning outcomes matches a level
• All documented learning outcomes have to be validated
• Examinations have to correspond to a respective level
• Variety of examinations

Learning outcomes of a defined level have to be validated
Assessment Criteria
Potential Conflicts (Examples)

**Smart criteria**

- Relevance versus Measurable
- Measurable versus Suitability /Fairness
- Relevance / Realistic versus demanding /adequate versus timeline

**Learning outcomes**

- Ability to work in teams
  - Group work?
- Ability to speak
  - Written examination?
- Proposals to act
  - Level bachelor thesis
  - 6-Weeks
Assessment Requires

• **Forms / Types**
  - Written
  - Oral
  - On-line
  - Theoretical
  - Practical
  - QA
  - Report
  - Essay...

• **SMART Criteria eg Weighting**
  - Context (5%)
  - Research Question (10%)
  - Methodology (15%)
  - Analysis (20%)
  - Conclusion (20%)
  - Recommendations (20%)
  - Literature (5%)
  - Presentation, Language, Quotation (5%)

*Beware:* No weighting according to the number of credits
**Knowledge widening**
- present tools to design a strategy and to develop business organisations strategically
- interpret alternative tools to make a choice
- outline consequences of strategic decisions

**Knowledge deepening**
- apply tools to implement a strategic development successfully
- identify and interpret strategic issues in different contexts
- realise how strategy development can be seen, how processes can be understood and what the implications are for strategy development
- differentiate between strategic management in different contexts

**Capability – Knowledge accessing / opening / developing**

**Instrumental (methodological) capability**
- apply techniques of strategic analysis
- apply techniques to select adequate strategies
- apply techniques to implement strategy

**Communicative / interpersonal capability**
- use different viewpoints on strategy to explain observable processes in organisations
- explain implications of different scenarios and different strategies

**Systemic capability**
- to demonstrate the impact of national and organisational culture on strategy formulation and implementation
- to apply techniques in specific business positions
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Forms of Assessment
- Quizzes („best two“)
- Oral Presentation (Case Study-Group)
- Oral exam (20 min. Individual)
- Case Study („Open Book Exam“-Notes)
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<th>80+</th>
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<tbody>
<tr>
<td>Clarity and relevance of terms of reference/aims and objectives and these have been fully met</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstration of knowledge, understanding and critical evaluation of relevant literature</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Justification and use of appropriate methods and data collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence of systematic data collection and clear presentation and findings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical analysis and interpretation of findings linking both secondary and primary research</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriateness of conclusions and, where required, realistic and appropriate recommendations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence that personal learning has been reviewed – skills reflection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfactory presentation of material, consistent and appropriate referencing and clear and accurate use of English</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Assignment

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Weighting</th>
<th>70%+</th>
<th>60-69%</th>
<th>50-59%</th>
<th>40-49%</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Generic: Communication</strong></td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Difficult to read and follow arguments. Very un orderly physical presentation.</td>
</tr>
<tr>
<td><strong>Knowledge &amp; Understanding</strong></td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Demonstrates no or very limited knowledge or understanding or required material.</td>
</tr>
<tr>
<td><strong>Analysis</strong></td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Descriptive only - no analysis.</td>
</tr>
<tr>
<td><strong>Synthesis/ Creativity/ Application</strong></td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No creativity or synthesis of material displayed.</td>
</tr>
<tr>
<td><strong>Evaluation</strong></td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Extremely limited evaluation of material - both practical and concepts.</td>
</tr>
<tr>
<td><strong>Assignment Parameters</strong></td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Parameters not followed.</td>
</tr>
</tbody>
</table>

Total 100
Requirements

„Blind Double Marking“
Consistency
Feed-back
Explanation
Transparency
Assessments only: „pass“ or „passing grade“

Transcript of Records

Assessments only

Credits

Information: Learning outcomes achieved!

Grading scale

Information: How were they achieved?

Grades

Frequent misunderstanding, therefore to be taken into account:
Credits are NOT weighting factors for grades
Grades and Grading Transfer

• National Grading System
• System of relative grades/marks – Percentage based
• Passing grades of modules and study-programmes
  – Additional information
  – No conversion tables
  – Reference: Moving cohort
Activity 4
Grade Distribution Table
Option Grade Conversion

How to do?
Design of a Grade Distribution Table

Steps to be taken
1. Grading scale (national / institutional)
2. Explanation of the system
3. Statistical distribution table of the passing grades awarded in the programme / field of study/module
4. Allow for comparison with parallel reference groups of other institutions at home or abroad
5. Additional information – not part of the distribution table: success rates
Example of an illustrative grading table
(ECTS User´s Guide)

<table>
<thead>
<tr>
<th>Grades used in institution (from highest to lowest passing grade)</th>
<th>Number of passing grades awarded to the reference group</th>
<th>Percentage of each grade with respect to the total passing grades awarded</th>
<th>Cumulative percentage of passing grades awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>50</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>9</td>
<td>100</td>
<td>10%</td>
<td>15%</td>
</tr>
<tr>
<td>8</td>
<td>350</td>
<td>35%</td>
<td>50%</td>
</tr>
<tr>
<td>7</td>
<td>300</td>
<td>30%</td>
<td>80%</td>
</tr>
<tr>
<td>6</td>
<td>200</td>
<td>20%</td>
<td>100%</td>
</tr>
<tr>
<td>1,000</td>
<td></td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>
Example

- Student G

Bachelor degree
Total grade 7 (30% / 80%)

i.e.
30% of the reference group have achieved this grade/
80% of the reference group have achieved this grade or a better one.
Example of positioning of relative grades (TU Darmstadt)

<table>
<thead>
<tr>
<th>Grade-category</th>
<th>Number</th>
<th>Number accumulated</th>
<th>%-rang</th>
<th>Grade-category</th>
<th>Number</th>
<th>Number accumulated</th>
<th>%-rang</th>
<th>Grade-category</th>
<th>Number</th>
<th>Number accumulated</th>
<th>%-rang</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sehr gut</td>
<td>gut</td>
<td>gut</td>
<td>gut</td>
<td>befriedigend</td>
<td>befriedigend</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,0</td>
<td>0</td>
<td>0</td>
<td>0.00%</td>
<td>1,6</td>
<td>6</td>
<td>32</td>
<td>5.45%</td>
<td>2,6</td>
<td>53</td>
<td>374</td>
<td>63.71%</td>
</tr>
<tr>
<td>1,1</td>
<td>0</td>
<td>0</td>
<td>0.00%</td>
<td>1,7</td>
<td>9</td>
<td>41</td>
<td>6.98%</td>
<td>2,7</td>
<td>45</td>
<td>419</td>
<td>71.38%</td>
</tr>
<tr>
<td>1,2</td>
<td>1</td>
<td>1</td>
<td>0.17%</td>
<td>1,8</td>
<td>30</td>
<td>71</td>
<td>12.10%</td>
<td>2,8</td>
<td>48</td>
<td>467</td>
<td>79.56%</td>
</tr>
<tr>
<td>1,3</td>
<td>8</td>
<td>9</td>
<td>1.53%</td>
<td>1,9</td>
<td>18</td>
<td>89</td>
<td>15.16%</td>
<td>2,9</td>
<td>38</td>
<td>505</td>
<td>86.03%</td>
</tr>
<tr>
<td>1,4</td>
<td>8</td>
<td>17</td>
<td>2.90%</td>
<td>2,0</td>
<td>21</td>
<td>110</td>
<td>18.74%</td>
<td>3,0</td>
<td>43</td>
<td>548</td>
<td>93.36%</td>
</tr>
<tr>
<td>1,5</td>
<td>9</td>
<td>26</td>
<td>4.43%</td>
<td>2,1</td>
<td>37</td>
<td>147</td>
<td>25.04%</td>
<td>3,1</td>
<td>24</td>
<td>572</td>
<td>97.44%</td>
</tr>
<tr>
<td></td>
<td>2,2</td>
<td>29</td>
<td>29.98%</td>
<td>3,2</td>
<td>8</td>
<td>580</td>
<td>98.81%</td>
<td></td>
<td>583</td>
<td>99.32%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2,3</td>
<td>48</td>
<td>38.16%</td>
<td>3,3</td>
<td>3</td>
<td>583</td>
<td>99.32%</td>
<td></td>
<td>585</td>
<td>99.66%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2,4</td>
<td>52</td>
<td>47.02%</td>
<td>3,4</td>
<td>2</td>
<td>585</td>
<td>99.66%</td>
<td></td>
<td>587</td>
<td>100.00%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2,5</td>
<td>45</td>
<td>54.68%</td>
<td>3,5</td>
<td>2</td>
<td>587</td>
<td>100.00%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Result

• Transparent possibility to understand the grade by the „receiver“
• No further calculation needed
• Documentation in the Diploma Supplement
In case of grade conversion

Basically possible:
Within an institution – between institutions– nationally and internationally

• Needed: Grade distribution scale of a parallel reference group of another study-programme, another institution ....

• Comparison of the position of a grade between, for example, two grade distribution scales in question

• Most likely: Overlaps, therefore it is useful whether the weakest, average or best comparative grade should be taken
Example

• Student G – as above (7 (30%/80%))

Compared with a grade distribution scale of another bachelor programme abroad
## Grade conversion

<table>
<thead>
<tr>
<th>Institution I</th>
<th>Institution II (Comparison)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td><strong>B</strong></td>
</tr>
<tr>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>9</td>
<td>100</td>
</tr>
<tr>
<td>8</td>
<td>350</td>
</tr>
<tr>
<td>7</td>
<td>300</td>
</tr>
<tr>
<td>6</td>
<td>200</td>
</tr>
<tr>
<td><strong>1,000</strong></td>
<td>100%</td>
</tr>
<tr>
<td>....</td>
<td>...</td>
</tr>
<tr>
<td><strong>5,000</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Attention: The lesser the degree of scaling, the more imprecisely the conversion
• From the perspective of a student (e.g.)

**final grades**, in particular for
- vertical mobility
- labour market
- recognition (formal)
- self-esteem...

**educational component,**
- learning progress
- financial support (grant, accommodation
- ability to perform
- ability to learn (management, learn to learn...)
- motivation...

*In Germany:*
- **MUST**
- **MAY**
Usable

• From the perspective of the teacher

Learning
Assurance
Esteem
Basis for monitoring
Possibility to compare
Quality assurance and enhancement
Normality...

Hope for a change of paradigm
Punishment Support
Part of Social Responsibility

+ Fairness
+ Transparency
+ Coherence
+ Comparability
  – internally / externally of the institution
+ Trust...

suitable, acceptable, feasible, sustainable
Requirements

- Representative number of students
- Sufficient number of examinations
- Min. 100 graduates
- This means for example: BA-programme of 3 years with six module exams per semester = 3600 exams.
- In addition to the quantitative aspects the qualitative comparability of the reference group has to be safeguarded (for example in case of change of examination regulations).
That is not too difficult – or?
Do it!
Questions left

• Still questions?
  – Write them down for the discussions to come today
  – Write them down and send them to me (v.gehmlich@hs-osnabrueck.de)
Modularisation in the EHEA
Session 3: ECTS and Recognition, Credits

HERE seminar “Modularisation of curriculum”
Podgorica April 26 / 2016
v.gehmlich@hs-osnabrueck.de
Learning Space
1st Session: Modularisation, Learning and Teaching
2nd Session Module Learning Outcomes Assessment
3rd Session ECTS and Recognition, Credits
4th Session Examples and Procedures
Guidelines

• The guiding principles for ECTS are the **Key Features**
• The guiding principles for learning outcomes are the **Qualifications Frameworks**, specified within a changing environment (PESTEL), the capabilities of the learner and the expectations of the society (stakeholders).
ECTS and Learning Outcomes

- **ECTS credits** reflect
  - assessed learning outcomes.
- **Learning outcomes** state
  - what the learner is expected to know and able to do at an identified stage of the learning process.
- **ECTS credits** reflect upon the time
  - an average learner needs to achieve the specified learning outcomes.
  - This does not exclude that individual learners may need much more or much less time to achieve the learning outcomes.
Learner Centred Learning Outcomes

- Communicate
- Solve problems
- Learn
- Work independently
- Adapt to situations
- Analyse
- Accumulation
- broad subject related knowledge
ECTS and Learning Outcomes

• ECTS credits
  – are a quantified measure of the learning outcomes
  – document that the learner has achieved
    • the learning outcomes of components of formal learning programme
    • the learning outcomes of the whole programme (degree)

• These learning outcomes may also be achieved through non-formal and informal learning
  – Recognition of prior learning (APL)
  – Recognition of prior and experiential learning (APEL)
ECTS and Learning Outcomes

• Credits specify the **quantity of learning** (workload)
• Learning outcomes specify the **quality of learning**.
• Bundles of learning outcomes make up a qualification (degree e.g.).
ECTS and Learning Outcomes

• **Credits on their own** don’t mean anything –
  – they receive their value through the learning outcomes and the respective level.

• **Learning outcomes on their own** have a meaning,
  – in particular in relation to qualifications frameworks.

• However, to this extent credits are like a **currency:**
  – Their parity is achieved through the learning outcomes (in the past: gold standard of a currency; today: belief in the state of the economy).
Elements of ECTS Credits

• In a formal programme ECTS credits are always related to an identified level of a qualification
  – e.g. Bachelor, Master...in the EQF-HE or level 1-8 in the EQF-LLL

• or even to a sub-level
  – e.g. first stage in a Bachelor-programme where this part / module forms a step towards a qualification

• The levels are described and specified by learning outcomes according to the qualifications framework (national, European...
THE BERMUDA TRIANGLE dissolved by referencing

Learning outcomes

Qualifications/-system

Learning and Teaching

Validity:

Examinations...

Quality

Assurance/Enhancement

Assessment

Grade/-ingsystem

Workload

Credit/-system
Do we need credits?

- Enough to say 1 credit = 25-30 learning hours
- 60 credits = 1 year = 1,500 – 1,800 learning/working hours

*Indicative only*

- Integrate credits into levels – orientation: formal programmes
Do we need credits?

- Credits are relative – not absolute
- Credits do not achieve compatibility on their own (fake correctness)
- Link with LO essential - Credits cannot do without learning outcomes
- Quality assured
Learning Outcomes
Qualifications Frameworks

Assessment
National system
Relative grades

Transfer
accumulate

Credits
Notional learning /
working hours

achievement
documentation
Activity 5
Allocation of Credits

How to allocate credits
Methods to allocate credits

• Evaluation Method
• Percentage Method
• Determination Method

Suitable / Acceptable / Feasible / Sustainable?
Evaluation Method Applied

Problem 1 = Feeling hungry and being alone at home

- **Objective** = to satisfy hunger
- **Means** = „To do something against it“ (to cook, to eat)
  - to work
- **Work** = energy/effort x distance

*Example*: Walk to the Mensa (refectory) – about 200m, join the queue, eat

*Result*: having eaten = Output
Problem 2  =  Starving and being alone at home

• Objective  =  kill hunger *quickly*
• Means  =  to do something quickly - in 15 minutes (to cook, to go to...)
• Achievement  =  energy/effort x distance within a unit of time

Example: anticipated (target) achievement / performance:
   Walk to the Mensa, about 200m in 2 min., queueing for 10 min., eating 3 min.

Result: Having eaten in 15 minutes (target=actual situation)
   = Output
Starting from here I can have eaten in the Mensa within 15 minutes

This has to be checked / evaluated over a longer period of time – variations in both directions are possible
Outcome = Always alone at home and hungry?

**Planned Outcome:**
- Feeling well-fed

(additional quality – performed achievement which hopefully is sustainable for some time)

**Acquired Learning Outcomes:**
- You can eat in the Mensa and feel well-fed (*knowledge broadening*)
- I can have eaten in the Mensa in 15 minutes if I jump the queue (*knowledge deepening*)
  - I know how to jump the queue (knowledge accessing and developing – *instrumental (pushing), communicative (asking), systemic* – (I have observed how others do it and use their „*method“*)

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2. Percentage Method

• Tested: Tuning Project – Business Group

1. Define categories of subject areas
• e.g.: Core subjects – electives – options
• or: Subject related – Non-subject related (Generic)
• Generic subject areas might be subdivided into: supporting – complementing – not related
• or: knowledge broadening – knowledge deepening – knowledge accessing (instrumental – communicative - systemic)

2. Discuss with experts the % share of the overall programme
3. Translate % into number of credits
4. Rounding / Aligning the figures
5. Discuss with experts (your colleagues) the further breakdown, i.e. allocating credits to the individual subjects within the group of programme areas
3. Determination method

1. Fix a basic size of module / learning component / learning unit and allocate a fixed number of credits.
2. Only this basic size or a multiple of it can be used for learning units.
3. Design adequate learning outcomes for these fixed units across the whole institution (imagine across Europe – think again about the Euro: face value is categorised – one or a multiple – difference, however, is the purchasing power).
## Allocation of Credits

<table>
<thead>
<tr>
<th></th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Any size</strong></td>
<td>Open discussion</td>
<td>Subjective non-ECTS elements (importance, etc)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fixed size</strong></td>
<td>No fights</td>
<td>Top-down</td>
</tr>
</tbody>
</table>

Both are possible: in the first case the teachers discuss the **contents** first, then allocate credits; likely result: too many / domino-effect.

In the other case the teacher has to restrict the **learning outcomes** according to the credits available respecting the LO of the whole programme/qualification.
Do we need credits?

- **We do not need a specific number of credits for recognition**
- **We only need them for:**
  - Confirmation that specified learning outcomes have been achieved – at module and at programme level
  - As structuring element for learning programmes as in working life
## Recognition

**The Lisbon Recognition Convention (1999)** *(see also ECTS User’s Guide)*

<table>
<thead>
<tr>
<th>Of qualifications</th>
<th>„....only substantial differences in view of the purpose for which recognition is sought (e.g. academic or de facto professional recognition) should lead to partial recognition or non-recognition of the qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Of foreign qualifications</td>
<td>„....should be granted unless a substantial difference can be demonstrated between the qualification for which recognition is requested and the relevant qualification of the State in which recognition is sought.“</td>
</tr>
</tbody>
</table>
The European Area of Recognition Manual (2012) explains „By focusing on the five key elements that together make up a qualification (level, workload, quality, profile, learning outcomes) and by taking substantial differences into account,

competent recognition authorities have transformed their approach

from expecting foreign qualifications to almost exactly the same as those offered in their own countries, to focusing on „recognition“ by accepting non-substantial differences.“
It is unlikely that the credits and learning outcomes of a single educational component in two different programmes will be identical.

**Advice:**
Recognition is based on compatibility of learning outcomes – not on course content

**Consequence:**
Recognition means that the number of credits gained for compatible learning outcomes somewhere will replace number of credits that are allocated for compatible learning outcomes at the awarding institution.
The difference in the number of ECTS credits gained after successful completion of a qualification are not a consideration

The programme learning outcomes should be the main factor

**Consequence:**
A comparable Bachelor degree should be recognised for the purpose of consideration for admission to a Master’s programme, independently of whether it is based on 180 or 240 credits
## Recognition of credit mobility

### Supporting documents:
- course catalogue, learning agreement, transcript of records, traineeship certificate

### The GOLDEN RULE:

All credits gained during the period of study/training abroad or during the virtual mobility (see LA and ToR) should be transferred **without delay** and counted towards the student’s degree **without any additional work or assessment** of the student.
### Overview

<table>
<thead>
<tr>
<th>Credits</th>
<th>Credits are awarded to the student for a defined performance</th>
<th>The awarding indicates that the student was successful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade</td>
<td>The teacher additionally grades the student in relation to his performance</td>
<td>The grading indicates how successful the student was within a defined grading table</td>
</tr>
<tr>
<td>Local / National Grade</td>
<td>The grade is part of the local/national grading system</td>
<td>It is related to the respective study- and examination regulations or other transparent rules</td>
</tr>
<tr>
<td>ECTS Grading Table</td>
<td>Locally referenced grading table against local, national or international grade transfer</td>
<td>The grades are regularly referenced according to a moving cohort</td>
</tr>
</tbody>
</table>
Questions left

• Still questions?
  – Write them down for the discussions to come today
  – Write them down and send them to me (v.gehmlich@hs-osnabrueck.de)
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Activity 1
Structuring of Modules

Programme Design
Module Template I (2 pages max.)
(Provide details of the module for students, staff and quality assurance purposes)

Short Module Details
1. Full Module Title
2. Module Code
3. Module Level
4. ECTS credits
5. Length
6. Module leader
7. Host Course
8. Module status (obligatory/option)
9. Pre-requisites (if appropriate)
10. Co-requisites (if appropriate)
11. Access restrictions
12. Assessment
13. Date validated
Module Template 2 (2 pages max.)
(Provide details of the module for students, staff and quality assurance purposes)

14. Module aims (3-6 aims the professor hopes to achieve)
15. Learning outcomes (4-8 LO – perspective of student: „On successful completion of this...“)
16. Indicative syllabus content (brief description of the module content)
17. Learning delivery (teaching/learning methods + study mode)
18. Assessment rationale (explanation of the assessment methods)
19. Assessment criteria (generic assessment criteria)
20. Assessment weighting (weighting of each assessment component)
21. Essential reading (list of key texts, web reference, journals...)
22. Intranet web reference (if applicable)
23. Validation date (if applicable)
Structuring of Modules

Programme Design
Key questions:

1. *Which syllabi are the essential characteristics of this degree programme? Without which module would no one consider this as the identified degree programme?*

Conclusion: *Core modules*
Step 1 (cont.)

2. *Which areas could be identified – vertically, horizontally or laterally – for further useful studies (profiling)?*

*(vertical): specialisation in a narrow sense = deepening; backward/forward integration;*

*(horizontal): interdisciplinary = enlargement;*

*(lateral): unrelated diversification)*

**Conclusion:** Specialisation modules / major / minor / electives / options
STEP 1 (CONT.)

3. **What else is needed to understand issues, identify and to express them in various ways?**

*To which extent can a quantitative approach help to explain these issues?*

**Conclusion:** Support modules

4. **How can I learn and organise myself?**

*How can I present / express best what I want to say*

**Conclusion:** Organisation and Communication modules
Step (cont.)

5. *How does theory relate to practice?*
   *How can I relate theory to practice?*
   *What are the methods?*

Conclusion: Transfer modules
RESULT OF STEP

- Structuring of degree programmes into **Core modules**

Objective of Learning Outcomes:

- Knowledge Acquisition and Widening

Specialisation modules (level dependent)

Objective of Learning Outcomes:

- Knowledge Acquisition and Deepening
RESULT OF STEP 1 (CONT.)

Support modules
Organisation and communication modules
Transfer modules

Objective of Learning Outcomes:
Methodology: Skills / Competences to learn and transfer
Knowledge acquisition (independent learning), developing and creating
Activity 2

Learning Outcomes

How to write programme and module LO
Goal: **Qualification Template 1**

(Handbook: essential information for student, staff and quality assurance purposes and other stakeholders)

1. Introduction to the discipline and qualification (brief - 1 to 2 paragraphs)
2. Rationale statement (explanation of the uniqueness – 1-2 paragraphs)
3. **Overall qualification learning outcomes (Profile – 4-8)**
   3.1 Reference to the NQF (identification of level and its description)
   3.2 Reference to the European Qualifications Framework for Higher Education
4. Structure of the qualification – include information on:
   4.1 List of core and subject specific option modules (include module codes)
   4.2 Explanation of module relationships (levels, pre-requisites, co-requisites and credit values, diagram)
   4.3 Free choice module information (if applicable)
   4.4 Progression routes within the qualification (if applicable)
   4.5 Information on module scheduling (if appropriate)
Qualification Template 2

5. Teaching and learning methods statement (overall rationale of approach)
6. Assessment rationale (overall logic and range of assessments employed)
7. Generic assessment criteria (expressed in generic learning outcomes)
8. Learning resources (brief description of subject specific resources)
9. Employability and transferable skills (if appropriate, link to university policy via matrix)
10. Student support (academic and pastoral tutoring arrangements)
11. Linkages to external reference points (Qualifications Frameworks)
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<td>...will be able to...</td>
<td>Derive, apply</td>
<td>Solutions</td>
<td>from knowledge of sciences, engineering s., technology, mathematics</td>
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<td>Identify, formulate, analyse, solve</td>
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<td>Design</td>
<td>System, component, process, Experiments, data</td>
<td>meet specified needs</td>
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<td>Conduct Analyse, interpret</td>
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<td>Work</td>
<td>Engineering community, with society at large</td>
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<td></td>
<td>Communicate</td>
<td>Engineering community, with society at large</td>
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# Example of Mapping

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<tr>
<td>Design, Conduct, Analyse, Interpret</td>
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<td>Work</td>
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**NB:**
PLO = Programme Learning Outcome
EC = Educational Component 1, 2...etc.
LO = Learning Outcome
Activity 3
Competence-oriented Assessment

How to assess?
Objectives of competence-oriented assessment

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<tr>
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<td>Acceptable</td>
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<td>Relevant</td>
<td>Realistic, competence oriented</td>
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<td>Timely</td>
<td>In which / at which time</td>
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Potential Conflicts
Knowledge widening
-present tools to design a strategy and to develop business organisations strategically
-interpret alternative tools to make a choice
-outline consequences of strategic decisions

Knowledge deepening
-apply tools to implement a strategic development successfully
-identify and interpret strategic issues in different contexts
-realise how strategy development can be seen, how processes can be understood and what the implications are for strategy development
-differentiate between strategic management in different contexts

Capability – Knowledge accessing / opening / developing

Instrumental (methodological) capability
-apply techniques of strategic analysis
-apply techniques to select adequate strategies
-apply techniques to implement strategy

Communicative / interpersonal capability
-use different viewpoints on strategy to explain observable processes in organisations
-explain implications of different scenarios and different strategies

Systemic capability
-to demonstrate the impact of national and organisational culture on strategy formulation and implementation
-to apply techniques in specific business positions
**Knowledge widening**
- present tools to design a strategy and to develop business organisations strategically
- interpret alternative tools to make a choice
- outline consequences of strategic decisions

**Knowledge deepening**
- apply tools to implement a strategic development successfully
- identify and interpret strategic issues in different contexts
- realise how strategy development can be seen, how processes can be understood and what the implications are for strategy development
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- explain implications of different scenarios and different strategies

**Systemic capability**
- to demonstrate the impact of national and organisational culture on strategy formulation and implementation
- to apply techniques in specific business positions

---

**Forms of Assessment**

- Quizzes („best two“)
- Oral Presentation (Case Study-Group)
- Oral exam (20 min. Individual)
- Case Study („Open Book Exam“-Notes)
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<th>&lt;40</th>
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<th>80+</th>
<th>Comments</th>
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<td>Critical analysis and interpretation of findings linking both secondary and primary research</td>
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<td>Evidence that personal learning has been reviewed – skills reflection</td>
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### Assignment

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</tr>
<tr>
<td>Extremely limited evaluation</td>
<td></td>
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</tr>
<tr>
<td>of material - both practical</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and concepts.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Assignment Parameters</strong></td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follows parameters/guidelines</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>exactly as asked.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Small element of guidelines</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>missing or inadequate.</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Satisfactory: basic adherence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to all guidelines or</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>compensation by some</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>distinctive element.</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small element of parameters/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>guidelines followed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parameters not followed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total 100**
Activity 4
Grade Distribution Table
Option Grade Conversion

How to do?
# Example of an illustrative grading table (ECTS User’s Guide)

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grades used in institution (from highest to lowest passing grade)</td>
<td>Number of passing grades awarded to the reference group</td>
<td>Percentage of each grade with respect to the total passing grades awarded</td>
<td>Cumulative percentage of passing grades awarded</td>
</tr>
<tr>
<td>10</td>
<td>50</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>9</td>
<td>100</td>
<td>10%</td>
<td>15%</td>
</tr>
<tr>
<td>8</td>
<td>350</td>
<td>35%</td>
<td>50%</td>
</tr>
<tr>
<td>7</td>
<td>300</td>
<td>30%</td>
<td>80%</td>
</tr>
<tr>
<td>6</td>
<td>200</td>
<td>20%</td>
<td>100%</td>
</tr>
<tr>
<td>1,000</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Example of positioning of relative grades (TU Darmstadt)

<table>
<thead>
<tr>
<th>Grade-category</th>
<th>Number</th>
<th>Number accumulated</th>
<th>%-rang</th>
<th>Grade-category</th>
<th>Number</th>
<th>Number accumulated</th>
<th>%-rang</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sehr gut</td>
<td>gut</td>
<td></td>
<td></td>
<td>befriedigend</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,0</td>
<td>0</td>
<td>0</td>
<td>0.00%</td>
<td></td>
<td>1,6</td>
<td>6</td>
<td>32</td>
</tr>
<tr>
<td>1,1</td>
<td>0</td>
<td>0</td>
<td>0.00%</td>
<td></td>
<td>1,7</td>
<td>9</td>
<td>41</td>
</tr>
<tr>
<td>1,2</td>
<td>1</td>
<td>1</td>
<td>0.17%</td>
<td></td>
<td>1,8</td>
<td>30</td>
<td>71</td>
</tr>
<tr>
<td>1,3</td>
<td>8</td>
<td>9</td>
<td>1.53%</td>
<td></td>
<td>1,9</td>
<td>18</td>
<td>89</td>
</tr>
<tr>
<td>1,4</td>
<td>8</td>
<td>17</td>
<td>2.90%</td>
<td></td>
<td>2,0</td>
<td>21</td>
<td>110</td>
</tr>
<tr>
<td>1,5</td>
<td>9</td>
<td>26</td>
<td>4.43%</td>
<td></td>
<td>2,1</td>
<td>37</td>
<td>147</td>
</tr>
<tr>
<td>2,0</td>
<td>2,2</td>
<td>29</td>
<td>176</td>
<td>29.98%</td>
<td>3,2</td>
<td>8</td>
<td>580</td>
</tr>
<tr>
<td>2,1</td>
<td>2,3</td>
<td>48</td>
<td>224</td>
<td>38.16%</td>
<td>3,3</td>
<td>3</td>
<td>583</td>
</tr>
<tr>
<td>2,2</td>
<td>2,4</td>
<td>52</td>
<td>276</td>
<td>47.02%</td>
<td>3,4</td>
<td>2</td>
<td>585</td>
</tr>
<tr>
<td>2,3</td>
<td>2,5</td>
<td>45</td>
<td>321</td>
<td>54.68%</td>
<td>3,5</td>
<td>2</td>
<td>587</td>
</tr>
</tbody>
</table>


## Grade conversion

<table>
<thead>
<tr>
<th>Institution I</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>10</td>
<td>50</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>9</td>
<td>100</td>
<td>10%</td>
<td>15%</td>
</tr>
<tr>
<td>8</td>
<td>350</td>
<td>35%</td>
<td>50%</td>
</tr>
<tr>
<td>7</td>
<td>300</td>
<td>30%</td>
<td>80%</td>
</tr>
<tr>
<td>6</td>
<td>200</td>
<td>20%</td>
<td>100%</td>
</tr>
<tr>
<td>1,000</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Insitution II (Comparison)</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>1,0</td>
<td>150</td>
<td>3%</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>1,3</td>
<td>300</td>
<td>6%</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>1,7</td>
<td>800</td>
<td>16%</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>2,0</td>
<td>1,300</td>
<td>26%</td>
<td>51%</td>
<td></td>
</tr>
<tr>
<td>2,3</td>
<td>1,500</td>
<td>30%</td>
<td>81%</td>
<td></td>
</tr>
<tr>
<td>2,7</td>
<td>500</td>
<td>10%</td>
<td>91%</td>
<td></td>
</tr>
<tr>
<td>....</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td></td>
</tr>
<tr>
<td>5,000</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Attention: The lesser the degree of scaling, the more imprecisely the conversion
Activity 5
Allocation of Credits

How to allocate credits
Methods to allocate credits

- Evaluation Method
- Percentage Method
- Determination Method

Suitable / Acceptable / Feasible / Sustainable?
Evaluation Method Applied

Problem 1 = Feeling hungry and being alone at home

- **Objective** = to satisfy hunger
- **Means** = „To do something against it“ (to cook, to eat)
- **Work** = energy/effort x distance

**Example**: Walk to the Mensa (refectory) – about 200m, join the queue, eat

**Result**: having eaten = Output
Problem 2 = Starving and being alone at home

- **Objective** = kill hunger *quickly*
- **Means** = to do something quickly - in 15 minutes (to cook, to go to...)
- **Achievement** = energy/effort x distance within a unit of time

*Example: anticipated (target) achievement / performance:*
  Walk to the Mensa, about 200m in 2 min., queueing for 10 min., eating 3 min.
*Result: Having eaten in 15 minutes (target=actual situation)*
  = Output
Learning Outcome

Starting from here I can have eaten in the Mensa within 15 minutes

This has to be checked / evaluated over a longer period of time – variations in both directions are possible
Outcome = Always alone at home and hungry?

**Planned Outcome:**
- Feeling well-fed

(additional quality – performed achievement which hopefully is sustainable for some time)

**Acquired Learning Outcomes:**
- you can eat in the Mensa and feel well-fed (*knowledge broadening*)
- I can have eaten in the Mensa in 15 minutes if I jump the queue (*knowledge deepening*)
  - I know how to jump the queue (*knowledge accessing and developing – instrumental (pushing), communicative (asking), systemic – (I have observed how others do it and use their „method“*)

gehmlich@wi.hs-osnabrueck.de
2. Percentage Method

• Tested: Tuning Project – Business Group

1. Define categories of subject areas
   • e.g.: Core subjects – electives – options
   • or: Subject related – Non-subject related (Generic)
   • Generic subject areas might be subdivided into:
     supporting – complementing – not related
   • or: knowledge broadening – knowledge deepening –
     knowledge accessing (instrumental – communicative
     - systemic)

2. Discuss with experts the % share of the overall programme

3. Translate % into number of credits

4. Rounding / Aligning the figures

5. Discuss with experts (your colleagues) the further
   breakdown, i.e. allocating credits to the individual
   subjects within the group of programme areas
3. Determination method

1. Fix a basic size of module / learning component / learning unit and allocate a fixed number of credits.
2. Only this basic size or a multiple of it can be used as learning units.
3. Design adequate learning outcomes for these fixed units across the whole institution (imagine across Europe – think again about the Euro: face value is categorised – one or a multiple – difference, however, is the purchasing power)
“I have a dream.”

Martin Luther King
Not this one
Not this one either
“THE SECRET OF CHANGE IS TO FOCUS ALL OF YOUR ENERGY, NOT ON FIGHTING THE OLD, BUT ON BUILDING THE NEW.”

— SOCRATES