Guide
Learning Outcome Descriptors at the course level

To: All Departments
From: PMU and the administration
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Introduction

As part of an increased focus on quality and relevance of higher education there has been a shift in focus towards Learning Outcome Descriptors in both Norwegian and international academia.

The so-called *student centered approach* means that where the emphasis used to be on *teaching*, the focus now is *learning*. Course descriptions used to focus mainly on which themes that would be covered in a given course, whereas now center stage is given to a description of the learning outcome the students will have obtained by the end of a course or a programme.

Learning Outcome Descriptors can be a useful tool for curricula management, both in courses and programmes, for making sure content and design fits with the intentions of a programme. Both NOKUT and AACSB are also focusing on Learning Outcomes, albeit with a somewhat different terminology.

Definitions

Traditionally, the Norwegian higher education system has been more preoccupied with describing input factors in a course or programme than with the qualifications students have on graduation.

Learning Outcome Descriptors are, by the definitions adopted by the National Qualification Framework, a specifications of the *knowledge*, *skills* and *general competence* all students have obtained when graduating from a course or programme. The grading scale is used to show to what degree the student has obtained the learning outcome.

The National Qualification Framework specifies what level of knowledge, skills and general competence is required at the bachelor, master and PhD level respectively.

Links:

- Levels and Learning Outcome Descriptors from the Norwegian Qualification Framework
- The Norwegian Qualification Framework (in Norwegian only)

Learning outcome descriptors…

- … should show what students must master in the assessment situations.
- … should clarify the connection between the learning objectives, the course activities and the assessments (so called “constructive alignment”).
- …be a tool for examiners
- …show how advanced a course is / what level it is at
- …explain to employers and society what competence a graduate possesses.

Writing Learning Outcomes

- Consider what a student should be able to do after finishing your course: explain terms or models, analyze situations or data, communicate results effectively etc. Look through previous exams and assignments to see what kinds of knowledge or skills have been emphasized so far. Are these the important ones in your course?

- Define 5 – 10 Learnings outcomes per course

- Learning outcomes should be grouped in three categories:
    - **Knowledge**: Understanding of theories, facts, principles, procedures in subject areas and/or occupations.
    - **Skills**: Ability to utilise knowledge to solve problems or tasks (cognitive, practical, creative and communication skills).
    - **General competence**: Ability to utilise knowledge and skills in an independent manner in different situations.

  Not all courses need to address all three categories!

- Learning outcomes must, *all in all*, be at the **correct level.**

- Begin each learning outcome with an **active verb**. Use only one verb per learning outcome. For example: *analyze*, *assemble*, *identify*, *solve*, *apply*, *evaluate*, etc

- Use adjectives to indicate the correct level. E.g. *advanced, mainstream, varied, complicated etc.*

- The course design (lectures, group work, etc) must train students towards achieving the learning outcomes

- Consider how students' achievement of learning objectives might be assessed.

- You may of course use the National Qualification Framework as inspiration, but remember that the national framework describes knowledge, skills and general competence the student has when graduated at the programme level. Not every course should not contribute to all learning objectives.

Alignment with the programme level

We must design our programmes in a way that ensures that the learning objectives on the programme level are achieved by all students regardless of major or choice of courses. After the final revision, the learning objectives for the Master in economics and business administration are the following:

Upon completion of the programme, the candidates shall

Knowledge

- have developed solid competence in empirical methods and ethics
- have an in-depth, up-to-date knowledge of relevant theories and empirics within economics and business administration
- have professional insight at a high international level

Skills

- be capable of updating themselves and applying new knowledge throughout their career
- have developed good analytical skills
- have learned to work independently with advanced problems

General competence

- be able to communicate with both specialists and non-specialists about their academic field
- have acquired a knowledge of and the ability to reflect upon and take into consideration ethical issues and social responsibility
- be able to contribute to innovation and entrepreneurship

SOME EXAMPLES FROM NHH THAT CAN SERVE AS INSPIRATION

Not all examples follow the format presented above, but might still serve as examples of how to describe the learning outcome.

When creating your own learning objectives, use the format: “Studenten kan ved fullført kurs …“ / “Upon completion of the course the student…”

SOL3 ORGANIZATIONAL THEORY

Knowledge - upon successful completion the student

- can demonstrate to have knowledge and understanding of central themes, theories, processes, tools and methodologies within the field of organization theory.
- can demonstrate to be familiar with research in the field of organization theory.
- will have an academic basis that prepares for future studies on organization theory.
- will have a critical and reflective understanding on the predictive power of the theories introduced in the course.
- can demonstrated to have reflective approach to real-life organizational problems and challenges.

Skills - upon successful completion the student can

- apply research findings within the field of organization theory on practical and theoretical issues.
- reflect on their own academic practice and adjust this practice under academic supervision.
- locate, select, organize, and document information on a business caser and formulate a relevant problem formulation.
- apply the relevant tools, techniques and forms of expression

General competences - upon successful completion the student

- can plan and execute a variety of tasks and projects that extend over time, alone and in groups, and in line with ethical requirements and guidelines
- can communicate key subject matter as theories, issues and solutions both in writing, orally and through other relevant forms of expression.
- can exchange views and experiences with others with backgrounds in the field or organization theory and thereby contribute to the development of good practice.

ECO433 EMPIRICAL STRATEGIES FOR CAUSAL ANALYSIS

Upon completion of the courde the candidate

Knowledge

- is able to formulate a research question
- understands the assumptions necessary to estimate causal effects

Skills

- is able to critically assess reports discussing associations between variables and interpret causal effects
- is able to independently estimate causal effects for instance as a part of a master thesis or in future professional careers
- know how to write and run do-files with relevant commands and produce tables and figures in STATA

ECS504 ADVANCED MICROECONOMIC THEORY I

Knowledge

- knowledge of the main results in neoclassical price theory;
- knowledge about the methods to study problems related to the behaviour of individual agents (consumers, business firms, and investors) and their interaction through markets and other social institutions.

Skills

- to address a microeconomic research question by structuring it as a mathematical model;
- to obtain useful economic predictions through the use of mathematical tools and a sound economic intuition;

General competence

- to communicate the research question, solution method and answer in a clear-cut manner.

FIN511 EMPIRICAL ASSET PRICING I

KNOWLEDGE - The candidate...

- will be familiar with typical computer tools for doing empirical work in finance: Matrix computational tools like Matlab, and statistical packages like R.
- Know the econometric methods necessary for doing empirics in finance.

SKILLS - The candidate...

- will be able to carry out asset pricing investigations, in particular portfolio performance evaluations.
- will be able to do event studies.
- will be able to do Vector Autor Regressions.
- will be familiar with high frequency data (microstructure data) and the analysis of such data.
- will be familiar with the potential for data snooping inherent in doing empirical research on the same financial data over and over again.

COMPETENCE - The candidate...

- has the tools and knowledge necessary to carry out typical empirical investigations in the field of financial economics.