

## Instructional Sciences (H002074)

Course size (nominal values; actual values may depend on programme)  
Credits 6.0 Study time 180 h Contact hrs 45.0 h

### Course offerings and teaching methods in academic year 2018-2019

Offering	Language	Teaching Method	Hours
A (semester 1)	Dutch	practicum	2.5 h
		seminar	25.0 h
		lecture: plenary	2.5 h
		exercises	
		group work	15.0 h

### Lecturers in academic year 2018-2019

Valcke, Martin PP06 lecturer-in-charge

### Offered in the following programmes in 2018-2019

Programme	crdts	offering
Bachelor of Science in Educational Sciences (main subject Clinical Special Needs Education and Disability Studies)	6	A
Bachelor of Science in Educational Sciences (main subject Pedagogy and Educational Sciences)	6	A
Bachelor of Science in Educational Sciences (main subject Social Work and Social Welfare Studies)	6	A
Joint Section Bachelor of Science in Educational Sciences	6	A
Linking Course Master of Science in Educational Sciences (main subject Clinical Special Needs Education and Disability Studies)	6	A
Linking Course Master of Science in Educational Sciences (main subject Pedagogy and Educational Sciences)	6	A
Preparatory Course Master of Science in Educational Sciences (main subject Clinical Special Needs Education and Disability Studies)	6	A
Preparatory Course Master of Science in Educational Sciences (main subject Pedagogy and Educational Sciences)	6	A

### Teaching languages

Dutch

### Keywords

Learning, instruction, epistemology, behaviourism, cognitivism, constructivism, metacognition, instructional design, curriculum development, evaluation.

### Position of the course

This course contributes to the following competence areas in the Bachelor Educational Sciences:

- B.1.1. Have insight in pedagogical, educational and orthopedagogical theoretical concepts.
- B.1.4. Being able to situate and analyze pedagogical, educational and orthopedagogical issues in practice, research and policy.
- B.1.5. Have insight into pedagogical, educational and orthopedagogical processes and situations.
- B.2.1. Identify scientific literature, judge its scholarly added value and use it.
- B.2.2. Being able to scientifically indicate educational and pedagogical theories, practice and policy.
- B.3.6. Approach a pedagogical, educational or orthopedagogical problem from multiple perspectives (multi perspectivism).
- B.4.5. Being able to collaborate in team in straightforward contexts.
- B.5.4. Have insight in cultural differences and integrate respect for diversity in

pedagogical, educational and orthopedagogical contexts.

## Contents

This course focuses on issues related to learning and instruction in formal and informal instructional settings, such as:

- fundamental epistemological approaches towards the concept of 'knowledge';
- the variety of learning paradigms: behaviourism, cognitivism, (social) constructivism;
- the approaches towards instruction that can be derived from different learning paradigms;
- metacognition & problem solving;
- instructional design models/approaches;
- curriculum development;
- evaluation & assessment.

## Initial competences

## Final competences

- 1 Describing learning and teaching processes from the perspective of alternative theoretical frameworks.
- 2 Using the general educational framework to map learning and teaching problems, themes activities.
- 3 Using scientific sources (e.g., research articles) to position an education problem, approach or process.
- 4 Presenting a theoretical and/or empirical foundation when presenting an argumentation in relation to an educational question or problem.
- 5 Applying alternative approaches towards learning and instruction when working in a collaborative learning setting.
- 6 Describing and explaining the impact of the context in educational theories.
- 7 Positioning and interpreting curriculum processes and curriculum products from a society perspective.
- 8 Developing an international and intercultural orientation towards educational themes.

## Conditions for credit contract

Access to this course unit via a credit contract is unrestricted: the student takes into consideration the conditions mentioned in 'Starting Competences'

## Conditions for exam contract

This course unit cannot be taken via an exam contract

## Teaching methods

Group work, practicum, seminar, lecture: plenary exercises

## Extra information on the teaching methods

- \* During weekly work sessions, students work in an interactive way on the solution of cases. These cases are elaborated individually and/or in small groups. The cases help to understand the relevance of and/or to apply the theoretical and empirical knowledge base. The weekly sessions are supported by an electronic learning environment. In this environment students get study advice, FAQ, examples of final tests, news, planning information, tools/software, etc.
- \* A key part of the learning environment is based on compulsory groupwork, supported with wikis or blogs. This groupwork is a compulsory and formal part of the course. Participation in the group work is evaluated and is part of the final score. Students work on the base of scripts or role assignments.
- \* Tutoring can be added as an extra didactical component.
- \* Students will also be involved in experiential experiments. The planning of these experiments is discussed during the course. Participation is compulsory.

## Learning materials and price

Valcke, M. (2018). Van leren tot instructie: Onderwijskunde als een ontwerpwetenschap. Leuven:ACCO  
Geraamde totaalprijs: 50 EUR

## References

- Bloom, B.S. (1971). Mastery Learning, in J. Block (Ed.), *Mastery Learning. Theory and Practice*. New York: Holt, Rinehart and Winston Inc.
- Case, R. & Bereiter, C. (1984). From behaviourism to cognitive development: Steps in the evolution of instructional design. *Instructional Science*, 13, 141-158.
- Cooper, P.A. (1993). *Paradigm Shifts in Designed Instruction: From Behaviorism to Cognitivism to Constructivism*. Educational Technology, May-issue, 12-19.
- Gage, N.L., & Berliner, D.G., (1984). *Educational Psychology*. Boston-London:

Houghton Mifflin Company-Palo Alto.

- Heidebreder, E. (1933). Seven Psychologies. New York: D. Appleton-Century Co.
- Hergenhahn, B.R., (1988). An introduction to theories of learning. New Jersey: Englewood Cliffs.
- Herrnstein, R.J. & Boring, E.G. (Eds.). (1966). A Sourcebook in the History of Psychology. Cambridge, Mass: Harvard University Press.
- Joyce, B. & Weil, M. (1986). Models of Teaching. New Jersey, Englewood Cliffs: Prentice-Hall.
- Joyce, B., Weil, M. & Showers, B. (1992). Models of Teaching. Boston: Allyn and Bacon.
- Reigeluth, C., (1999), Instructional design theories and models New Jersey: Lawrence Erlbaum Associate Publishers.
- Schunk, D.H. (2004). Learning Theories – an educational perspective. Upper Saddle River, NJ: Pearson - Merrill Prentice Hall.
- Thompson, A.D., Simonson, M.R., Hargrave, C.P. (1992), Educational Technology. A review of the research. Revised Edition. Washington: Association for Educational Communications an Technology.
- Vygotsky, L.S. (1978). Mind in Society. Cambridge: Cambridge University Press.

#### Course content-related study coaching

- interactive support using Minerva and an online course environment;
- by appointment.

#### Evaluation methods

end-of-term evaluation and continuous assessment

#### Examination methods in case of periodic evaluation during the first examination period

Written examination with multiple choice questions

#### Examination methods in case of periodic evaluation during the second examination period

Written examination with multiple choice questions

#### Examination methods in case of permanent evaluation

Participation, assignment

#### Possibilities of retake in case of permanent evaluation

examination during the second examination period is not possible

#### Extra information on the examination methods

The permanent evaluation is based on the student contributions (quantitative and qualitative) in the group work (process) and the results from the group work (product). Written exam; with multiple choice questions that build on cases and statements. Example exam items are available in the electronic learning environment. On average, the exam consists of 30 to 40 items. Items cover each individual theme that has been discussed in the lessons.

Feedback on the non-periodical evaluation:online

#### Calculation of the examination mark

A combination of periodic evaluation (12/20) and permanent evaluation (8/20).

Students who eschew one or more parts of the evaluation can no longer pass the course. Final scores will be reduced to the highest non-deliberative quotation (7/20) in case the final score is higher.