



Doctoral education in the Life Sciences: Focus in research ⇔ focus in education

Saskia Ebeling, PhD

Graduate School of Life Sciences

Administrative Secretary to the Board of Studies

Managing Director PhD Course Centre

s.ebeling@uu.nl

[@UU_GSLs](#)

The Life Sciences Ecosystem: Utrecht Science Park



The Life Sciences Ecosystem: Utrecht Science Park



The Dutch system

In general, in The Netherlands, a PhD candidate is an employee, not a student.

- Master's degree;
- He/she has a contract, often 4 years, and a salary;
- No tuition fee;
- And all rights and duties associated with employment, described in a Collective Labour Agreement;
- The faculty, headed by the dean, is the employer.





Graduate School of Life Sciences



Vet. Med.



UMC Utrecht



Science



14 Master's programmes
± 1,200 MSc students
± 20% international

14 PhD programmes
± 1,750 PhD candidates
± 20% international

Graduate School of Life Sciences: Research-based education

Focus area of research
Neuroscience & Cognition
Cardiovascular Research
Drug Innovation
Earth & Sustainability
Epidemiology
Growth & Differentiation
Infection & Immunity
Life Sciences & Biocomplexity

Graduate School of Life Sciences: Research-based education

Focus area of research	Master's Programme
Neuroscience & Cognition	- Neuroscience & Cognition
Cardiovascular Research	- Biology of Disease
Drug Innovation	- Drug Innovation
Earth & Sustainability	- Environmental Biology - Toxicology & Environmental Health
Epidemiology	- Epidemiology - Epidemiology postgraduate
Growth & Differentiation	- Cancer, Stem Cells & Developmental Biology - Regenerative Medicine & Technology
Infection & Immunity	- Infection & Immunity
Life Sciences & Biocomplexity	- Molecular & Cellular Life Sciences - Biomedical Image Sciences
	- Science & Business Management

Graduate School of Life Sciences: Research-based education

Focus area of research	Master's Programme	PhD programme
Neuroscience & Cognition	- Neuroscience & Cognition	- Cognition & Behaviour - Clinical & Experimental Neuroscience
Cardiovascular Research	- Biology of Disease	- Cardiovascular Research
Drug Innovation	- Drug Innovation	- Drug Innovation
Earth & Sustainability	- Environmental Biology - Toxicology & Environmental Health	- Environmental Biology - Toxicology & Environmental Health
Epidemiology	- Epidemiology - Epidemiology postgraduate	- Epidemiology
Growth & Differentiation	- Cancer, Stem Cells & Developmental Biology - Regenerative Medicine & Technology	- Cancer, Stem Cells & Developmental Biology - Clinical & Translational Oncology - Regenerative Medicine
Infection & Immunity	- Infection & Immunity	- Infection & Immunity
Life Sciences & Biocomplexity	- Molecular & Cellular Life Sciences - Biomedical Image Sciences	- Molecular Life Sciences - Biomembranes - Computational Life Sciences - Medical Imaging
	- Science & Business Management	

Science for Life

- Environmental Biology
- Molecular & Cellular Life Sciences
- Science & Business Management
- Drug Innovation
- Bio Inspired Innovation
- Drug Innovation
- Environmental Biology
- Biomembranes
- Molecular Life Sciences
- Computational Life Science

Personalised Medicine

- Neuroscience & Cognition
- Cancer, Stem Cells & Developmental Biology
- Biology of Disease
- Medical Imaging (2017)
- Clinical & Experimental Neuroscience
- Medical Imaging
- Cancer, Stem Cells & Developmental Biology
- Cardiovascular Research
- Clinical & Translational Oncology

One Health

- Epidemiology
- Infection & Immunity
- Toxicology & Environmental Health
- One Health (2017)
- Infection & Immunity
- Epidemiology
- Toxicology & Environmental Health

Regenerative Medicine

- Regenerative Medicine & Technology
- Regenerative Medicine

Community is key



PhD programmes

- Introduction to the participating research groups: research topics, technology, equipment
- Courses, master classes, symposia, journal clubs etc.
- PhD retreat

PhD Council

- Annual survey the quality of education, supervision and regulations once a year
- Represented in the Executive Board of Studies
- Meets once a month
- Organizes the annual PhD day and other PhD events
- Election of (daily) supervisor of the year



PhD Competence Model (2017)



www.phdcompetencemodel.nl

PhD Course Centre (2015)



LERU 2014:

*A PhD candidate is the driver
of his/her own professional development*

bit.ly/PhDCourseCentre

The PhD Track

Start

- Admission to the PhD track granted by the university's Board for the Conferral of Doctoral Degrees, appointment of supervisor(s) and daily supervisor(s)
- Admission to the graduate school by handing in a Training & Supervision Agreement: admission to a PhD programme, list of intended training, appointment of a Supervisory Committee (1-2 PI's)

During

- Go/no go decision after 1 year
- Annual assessment interview
- Interviews with the Supervisory Committee: monitoring of progress, career
- Faculty Confidants

End

- Thesis defense
- School's Training Certificate (20 EC)

Thesis requirements

The PhD candidate is responsible for ensuring that the research that will serve as the basis for the doctoral thesis shall fulfil the following conditions:

- The PhD candidate makes an original contribution to academic research of a quality which stands up to peer review at the level usual in the Netherlands;
- The PhD candidate has demonstrated their ability to independently apply the academic methods used in the discipline concerned for developing, interpreting and putting into practice new knowledge;
- The PhD candidate has acquired and worked with a substantial body of knowledge which, at the very least, embraces the principles and methods of international academic practice and of theorisation, methodology and study in the discipline concerned;
- The PhD candidate possesses the ability to design and implement a substantial project for the purpose of developing new knowledge;
- The PhD candidate is able to pass on knowledge and methods pertaining to their discipline or specialism in an effective way;
- The PhD candidate is able to exercise social responsibility in the conducting, applying and making use of their own research.

Responsibilities (1)

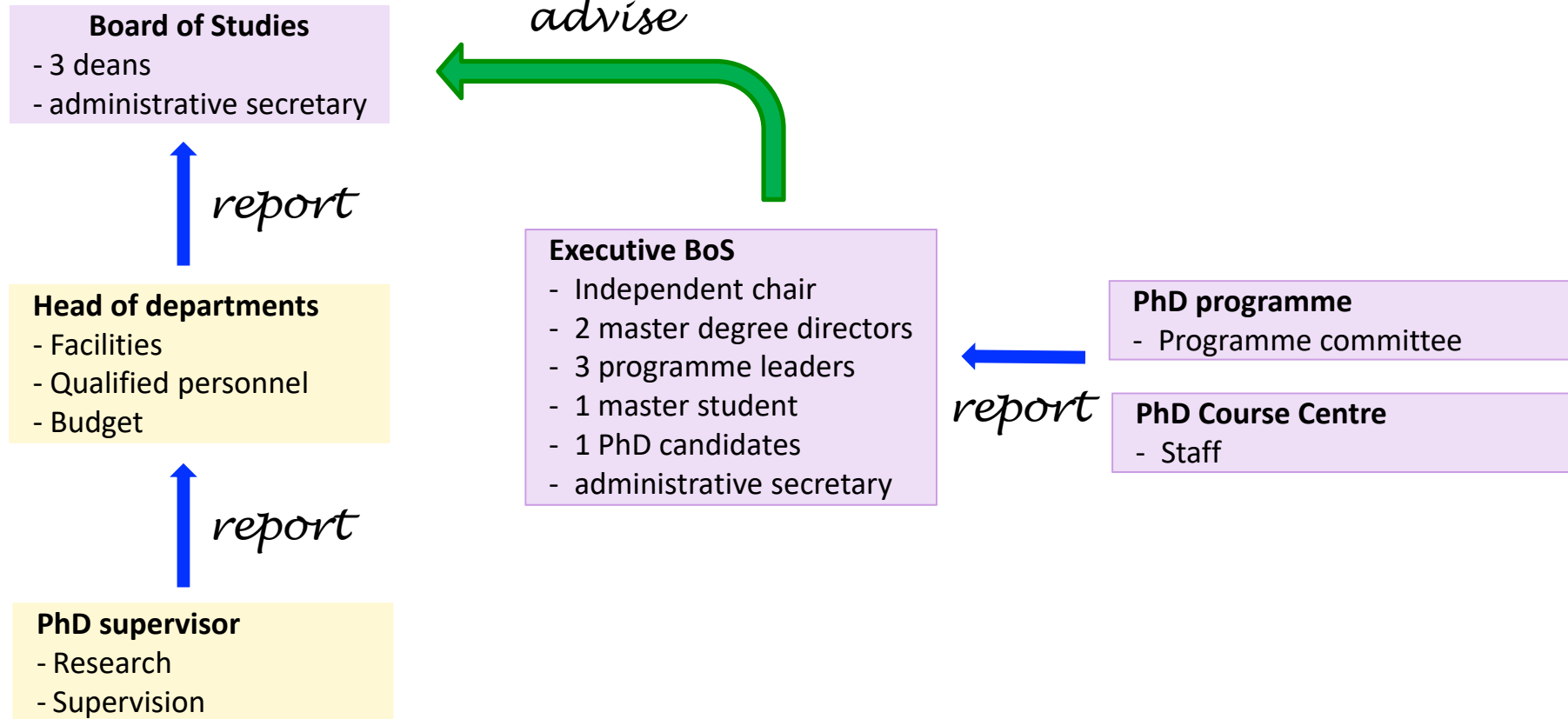
The Graduate School is led by a Board of Studies: Life Sciences deans

Research, thesis: individual responsibility of the faculties

Supervision: individual responsibility of the faculties

Training: PhD programmes, PhD Course Centre: shared responsibility of the Board of Studies

Responsibilities (2)



Questions

The distribution of responsibilities between faculties and graduate schools in the organisation of doctoral studies: What is the role of the graduate school in doctoral training?

How are doctoral study programmes structured (incl. how big is the proportion of compulsory courses in the programme)? What incentives/support is provided for students to take up doctoral studies? How is students' development/progress in writing the thesis assessed?

What are the thesis requirements? Apart from PhD, are there other types of doctoral degrees that can be pursued (e.g. industrial doctorate)?

How many of the doctoral students simultaneously hold a (teaching/research) position at the university? What regulations apply to such positions? How many doctoral students choose a non-academic career after graduation?

Small overview about the Dutch system.