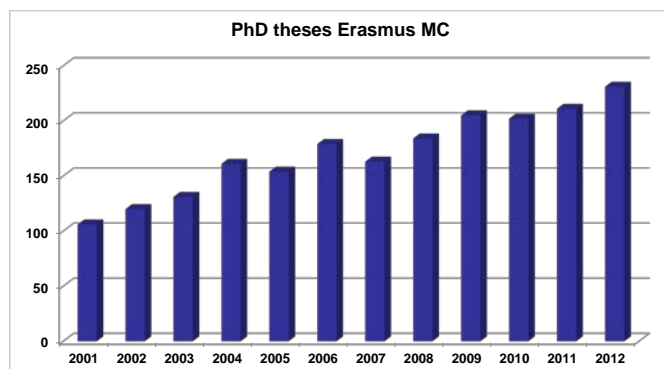


Guidelines for the PhD programme and thesis evaluation within Erasmus MC

These guidelines were drawn up after discussions in the PhD committee, the Graduate School Board (GSB) and the Medical Research Advice Committee Erasmus MC (Mrace), in consultation with the Rector Magnificus of Erasmus University (EUR) and the Netherlands Federation of University Medical Centres (NFU). The need for transparent guidelines for the PhD programme and for evaluating the quality of PhD theses at Erasmus MC was prompted by the sharp rise in the number of PhDs awarded in recent years (nearly 100% in 10 years; see table). But it was also prompted by the fact that the content of PhD



programmes can vary considerably, and that the process for evaluating the quality of theses lacks transparency. The evaluation criteria vary greatly, and are determined largely on an individual basis, partly because the doctoral regulations at Dutch universities offer only cursory indications on how theses should be evaluated.¹

The aim of the guidelines is to provide clarity to PhD students and supervisors

(i.e. *promotors* and *copromotors*) on a number of points, and to give direction regarding the desired content and quality of the PhD programme and the thesis. This document in fact describes guidelines which in most cases are already standard practice. Erasmus MC standards were already high, and are consistent with the guidelines drawn up at European level and by the NFU.²

Guidelines for the PhD programme

Duration of the PhD programme

In principle, a PhD programme within Erasmus MC lasts four years; in the case of a full-time position, it corresponds to 3-4 years of research work. There is no difference in the requirements for clinical and pre-clinical PhD programmes; the four-year duration is a basic principle for all PhD programmes. If there are well-founded reasons, it is possible to diverge from this guideline.

¹ The doctoral regulations of Erasmus University

(http://www.eur.nl/english/ab/registrars_office/phd_defence_ceremonies/doctoralregulations/) give only very general instructions for assessing theses.

² At the European level, ORPHEUS (Organisation of PhD Education in Biomedicine and Health Sciences in the European System) published a position paper in 2009. It was entitled 'Towards Standards for PhD Education in Biomedicine and Health Sciences' (2009), and served as the basis for the NFU document 'Guidelines for PhD tracks in biomedical sciences in the Netherlands', which was produced for purposes of maintaining and enhancing the high standard of Dutch PhD programmes. Where possible and desirable, this is an issue the University Medical Centres wish to work on together.

Training and supervision plan (TSP; in Dutch: *Opleidings- en begeleidingsplan, OBP*)

At the start of the PhD programme, each PhD student discusses the training and supervision plan (TSP) with his or her *promotor*. The TSP includes a number of standard points:

- General information: PhD student, supervisor(s), *promotor* and *copromotor*, research school
- Training programme: courses, seminars, conferences
- Teaching tasks
- Thesis layout: general organisation
- Planning: duration of PhD programme, timetable for coming year
- Results: objectives for the coming year, such as research protocol, data collection, first draft of first article, etc.
- Supervision: frequency of appointments with supervisors and *promotors*
- Available budget: for courses and conferences
- Other: other activities during the PhD programme
- Signatures

The TSP can serve as a guide for the annual evaluation with the PhD student about the progress of the PhD programme. If necessary, the TSP can be changed or adjusted during the PhD programme.

Training of PhD students

Erasmus MC recommends students to obtain 30 ECTS (European Credit Transfer and Accumulation System) in education and training during the PhD programme. Such activities involve knowledge or skills of a general, academic, or specialist nature; conferences or seminars in the Netherlands or abroad; and participation in retreats or journal clubs. Provided it is relevant and contributes to their PhD research, research physicians or residents in training (*assistenten in opleiding*, or AIOS) may also include instruction they have had in the context of their medical studies. A PhD student and his or her supervisors/*promotor*/*copromotor* share responsibility for the type and amount of education and training completed during the PhD programme.

Teaching

Teaching can be a very useful additional activity for PhD students as part of their training or development. If PhD students do academic or skills-based teaching, it is a requirement that they obtain a basic teaching qualification ('*deel-BKO*, i.e. *Basis Kwalificatie Onderwijs*'). Teaching experience and the basic teaching qualification can of course be included in the PhD student's portfolio (see next section).

Portfolio

Courses and activities must be listed in the doctoral thesis. On the last page of their thesis, all Erasmus MC PhD students should include a "portfolio" which specifies all the courses they have attended and the teaching they have done. Here, provided these are related to the PhD programme, they can also include their supervision of students or research assistants, as well as teaching or management activities.

Thesis evaluation

From 2013 Erasmus MC will be using the guidelines described below for the evaluation of PhD theses. The conclusion is that the **inner doctoral committee** is central to high-quality evaluation. The committee's members are experts in the field who are qualified to assess the quality of the thesis according to the traditions of the field of study. Thesis evaluation has now been improved by modifying:

1. **the composition of the inner doctoral committee**
2. **the guidelines for thesis evaluation**
3. **reporting by the inner doctoral committee.**

Re 1. The composition of the inner doctoral committee

According to Erasmus University's doctoral regulations, the inner doctoral committee comprises three members plus one or two *promotors* (article 6.1).

Erasmus MC has two additional recommendations here:

- In principle, the members of the inner doctoral committee should not be connected to the department of the *promotor* or *promotors*
- At least one member of the inner doctoral committee should be external to Erasmus MC

Re 2. The guidelines for thesis evaluation

The current doctoral regulations give only very general pointers on evaluating a thesis.

Complementary guidelines have been developed for Erasmus MC, which state that sub-committee members should evaluate theses on the basis of the following four points:

- **The quality of the thesis should be satisfactory.** An important indicator for academic quality is the publication of all or various parts of the PhD research in academic journals or an equivalent academic publication. The guideline is that the thesis should contain at least four peer-reviewed international academic publications (*accepted* or *published*), at least two of which should be first-author works, and at least two in the first quartile of the scientific field concerned. This guideline allows, for example, scope for high-risk research, for differences in publication policy, and for differences in publication opportunities in a range of fields. If there is a divergence from the guideline, it must be supported and justified by the *promotor*.
- **The thesis should deal with one single topic and be coherent.**
- The PhD student should have made an essential **personal contribution** to the PhD research.
- The thesis should contain a **portfolio**, which specifies all the courses and conferences the candidate has attended and the teaching he or she has done.

These four points are evaluated by each member of the inner doctoral committee.

Re 3. Reporting by the inner doctoral committee*

On the basis of the four points specified above, each committee member reports their evaluation of the thesis in writing (by e-mail) to the secretary of the inner doctoral committee. A concise form has been developed for this purpose. The secretary reports the final decision to the Doctorate Board (*College van Promoties*).

If all members of the inner doctoral committee evaluate the thesis positively, the student can be awarded a PhD. If two or more committee members consider the quality of the thesis to be unsatisfactory, the student will be refused a doctorate. Before arranging for a new committee to be set up, there is in principle a discussion between the Dean of Erasmus MC and the *promotor*. The aim of this discussion is to gain full understanding of the judgment made and to reach agreement on the correct way to proceed. As described in the doctoral regulations (section 6.3), the *promotor* can then, following approval from the Dean, request the Doctorate Board to set up a new PhD inner doctoral committee.

** Please note that the guidelines with respect to the composition of the inner committee and the thesis evaluation are currently applicable. However, due to required changes in Hora Est, the evaluation form – as described in 'Re 3' – cannot be used at this moment. We will inform Erasmus MC promotors when the use of the evaluation form has been implemented in the system.*