1. BE: België - Belgique - Belgien (Belgium)

Authors: Raf CATHOOR (Flanders) (EAEEIE, Karel de Grote Hogeschool, <u>raf.catthoor@kdg.be</u>), Joseph BARSICS (Wallonia), (HEPL, Haute École de la Province de Liège, Joseph.Barsics@provincedeliege.be)

1.1. General information



Capital: Brussels. Population (thousands): 10,500.

In 1993, Belgium became a federation of three communities, each with their own legislative council and government: the Flemish speaking, the French speaking and the German speaking communities. The three communities have autonomy in education.

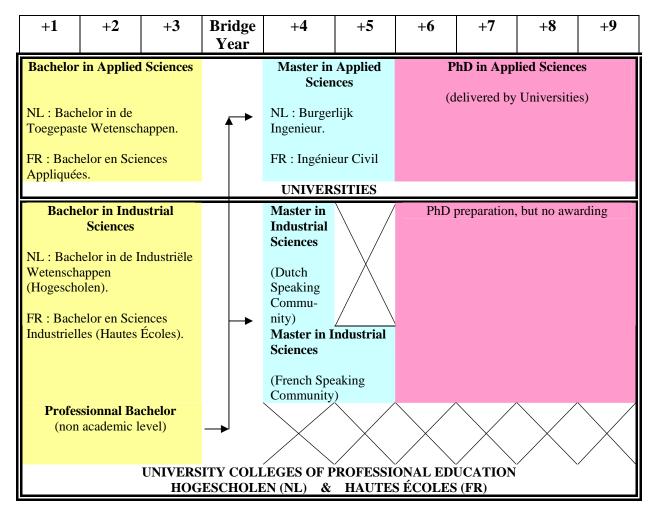


Figure 1.1: Belgian Higher Education System in EIE disciplines.

1.1.1 Electrical and Information Engineering in Belgium, boundaries of the field of study

In the past, the first university degree (licentiate/engineer) was awarded after 4 of 5 years, and an intermediate degree (called candidate) after 2 years.

After the Bologna process, a new higher education decree restructured university study programmes into a Bachelor programme of 180 ECTS credits followed by a Master programme of at least 60 ECTS credits. The introduction of the new Bachelor programmes started in the academic year 2004/05, and of the Master programmes in 2007/08. Both the traditional universities and the university colleges of professional education ("Hogescholen" in Flanders, "Hautes Écoles" in Wallonia) are adapted to this system:

1. Traditional universities were offering a 5 year programme (2+3) + PhD which is now transformed into <u>academic bachelor (3) + master (2) + PhD.</u>

2. University colleges of professional education were offering a 4 year programme (2+2) of academic education which is now transformed into:

- (Hogescholen) in Flanders: <u>an academic bachelor (3) + master (1);</u>
- (Hautes Écoles) in Wallonia, an academic bachelor (3) + master (2)..

3. The Hogescholen and Hautes Écoles were also offering a 3 year programme of Professional Education, which is now transformed into a professional bachelor. This bachelor degree is different from the academic one. It is a professional or vocational bachelor, and minimum one bridge-year is required for having access to master studies.

Almost all university master programmes consist of 120 ECTS credits, where many Hogescholen master programmes consist of 60 credits only (Flanders). Maybe their master programmes will be extended in the future to 90 or 120 ECTS (which is already the case in Wallonia), but at the moment, no extra funding neither a decree is foreseen by the Ministry of Education.

In Flanders, all university colleges of professional education are associated with a traditional university in order to ensure a quality control and the necessary link to research. An important condition for obtaining an accreditation for their master programme is the requirement to work out significant scientific research activities intra muros. Some university colleges of professional education are associated with a university without a faculty of engineering.

In Wallonia, this type of formal association is currently not mandatory, and not generalized, but it exists, and it is more or less a goal. When it does not exist, the relevant university college nevertheless gets links to research and/or to regional, national or european R&D projects funding on its own abilities.

1.1.2 Content, degrees and accreditations

The content is defined by the law: there is a domain specific reference frame of education profiles. Each institution has the possibility to add a serial of specific courses. EIE education profiles and the professional job profiles have been defined in cooperation with representatives from the industry.

1.1.3 Implementation of the Bologna-BMD system in Belgium

The traditional universities implemented Bachelor-Master programmes of 180 ECTS credits for the Bachelor, 120 credits for the Master, and doctoral studies.

Their master title in EIE is called "master in applied sciences" (Dutch: "master in de toegepaste wetenschappen"; French: "master en sciences appliquées").

The university colleges of professional education in Wallonia adopted this system for their academic programmes. The university colleges of professional education in Flanders did the same, except that they still have a one year master of 60 credits.

Their bachelor/master title in EIE is "called bachelor/master in industrial sciences" (Dutch: bachelor/master in de industriële wetenschappen; French: bachelor/master en sciences industrielles). The faculties are called "faculty of industrial sciences" (Dutch: faculteit industriële wetenschappen; French: faculté des sciences industrielles).

Doctoral studies can only be done at traditional universities, but PhD students may accomplish a part of their research inside these HEIs and be supervised by their academic staff.

The university colleges of professional education also offer a professional bachelor degree, which is not of academic level, there is no master on top of it.

Examples: professional bachelor in Electronics-ICT, in Multimedia and Communication technology, in Applied Informatics ...

A minimum of one bridge-year is required for having access to master studies.

1.2. Figures on the weight of EIE in Belgium

In the Universities of Professional Education, one cycle type, the number of EIE students is about 10 % of the total population.

In the Universities of Professional Education, two cycle type, the number of EIE students is about 8.5 % of the total population.

In the Universities, the number of EIE students is about 6 % of the total population.

Figures on the weight of EIE in Flanders

http://www.ond.vlaanderen.be/hoger onderwijs/online statistiekennieuwSTART.htm

In the University colleges of Professional Education, professional bachelor, the number of EIE students is about 10 % of the total population.

In the University colleges of Professional Education, academic programme, the number of EIE students is about 8,5 % of the total population.

In the Universities, the number of EIE students is about 6 % of the total population.

Figures on the weight of EIE in the French speaking Community.

http://www.statistiques.cfwb.be/publicationsDetails.php

In the University Colleges of Professional Education, professionnal bachelor, the number of EIE students is 9.2 %.

In the University Colleges of Professional Education, academic programme, the number of EIE students is 12.2 %.

In the universities, the number of EIE students is below 7.3 %.

In general, engineering studies are less popular than 10 years ago. Today, EIE students are mainly interested in Informatics, Multimedia, Web design... They have less interest in electricity and electronic design courses.

1.3. Degrees in EIE in Belgium

All students who hold an upper secondary education certificate have access to higher education. Belgium has a three tier higher education system:

The **Universities of Professional Education** delivers a secondary school ("sec. sch.") + 3 year diploma for their one-cycle education, which is not of academic level. The secondary school + 3 year diploma is a bachelor degree, e.g. bachelor in automatic control, bachelor in electronics, bachelor in telecommunications....

The Universities of Professional Education in the Flemish speaking Community, deliver a "sec. sch." + 4 year diploma for their two-cycle education. This diploma is of academic level. The "sec.

sch."+ 4 system ends with the diploma of "Industrial engineering", e.g. industrial engineering in electronics.

In the French speaking Community, this is a "sec. sch. + 5 year diploma.

Classical Universities with EIE curricula have in general a "sec. sch." + 5 year system. It ends with the "*Burgerlijk Engineer*" (Flemish community) or "*Ingénieur civil*" (French community) degree, which is equivalent to a Master degree, e.g. master in electronics, master in electricity, ...

Only these universities organise an admission exam.

Computer Technology and Informatics is also a final degree in the faculty of Science, which is now a 4 year study programme.

1.3.1 Bachelor level (previously named "Gegraduerde/Graduat")

Bachelor in Electronics-ICT Bachelor in Applied informatics Bachelor in Multimedia and Communication Technology Bachelor in Informatics Bachelor in Management Computing Bachelor in Computing & Systems – Industrial Computing option. Bachelor in Computing & Systems – Networking & Telecommunication option. Bachelor in Computer Graphics & Multimedia Design. Bachelor in Medical Electronics.

1.3.2 Master+4 (Industrieel ingenieur) & Master+5 (Ingénieur Industriel) levels :

Industrial Engineering in Electronics specialisation Design Techniques Industrial Engineering in Electronics specialisation Information and Communication Techniques Industrial Engineering in Electricity – Electricity option Industrial Engineering in Electricity – Electronics option Industrial Engineering in Electricity – Computing option

1.3.3 Master level (Burgerlijk ingenieur/Ingénieur civil)

Master in Electronics-ICT Master in Electrotechnics, specialisation physical electronics Master in Electrotechnics, specialisation ICT-micro-electronics Master in Electrotechnics, specialisation ICT-multimedia and signal processing Master in Electrotechnics, specialisation ICT-telecommunication and telematics Master in Informatics Master in Computer science (4 years)

1.4 References

The information given in this monograph is based on the following documents and web links:

1. Education in the Flemish community:

http://www.ond.vlaanderen.be/

- 2. Education in the French community: <u>http://www.agers.cfwb.be/</u> <u>http://www.restode.cfwb.be</u>
- 3. Société Européenne pour la Formation des Ingénieurs (SEFI): http://www.sefi.be



1.5 Doctoral Studies in Belgium

1.5.1. Supervision

Scientific Board or Supervisor

The <u>Scientific board</u> is composed by six members or more elected by the Faculty or Department. The student, <u>in most cases</u>, has the same personal supervisor during its thesis work on an <u>active</u> research area of the supervisor.

Subject Assignment

Subject assigned at the beginning of the doctoral studies, by agreement between the student and the supervisor.

Who can be a Supervisor

Any professor or lecturer in the department.

Tasks of Scientific Board/Supervisor

1.	General management	YES
2.	Deciding/advising layout of course	YES
3.	Assigning a thesis subject	NO

Duration

Four years.

1.5.2. Development

Courseware?

Yes.

Course Work

1. The students have to take course work during their doctoral degree preparation and offered as specialist graduate course units. The course work in some cases can be assessed by examinations. When it is not, it consists of personal work directly linked to the research. If the student fails in the course work, he/she can retake the exam, take a different course unit, or develop non-course-work activities.

- 2. Extension: 30 hours or more, in the first year and sometimes in the second year.
- 3. Credit system: ECTS. 2 to 3 credits. / 30 to 60 credits are allocated to course work.
- 4. Monitoring of the doctoral student when the course work is assessed by examinations.

Contribution to Teaching

1. Supervision of undergraduate laboratory work; tutoring of undergraduate groups and marking of undergraduate assessments/homework.

2. Coaching of master thesis work.

Presentation of Work

- **1.** In the department.
- **2.** At national conferences.
- **3.** At international conferences.

1.5.3. Thesis Work

Submission of Doctoral Written Thesis

1. <u>Languages</u> normally used: English and French (specially used in the French part of the country). Although permitted, alternative languages are rarely used: Flemish and German.

2. <u>No</u> credits are allocated to the doctoral thesis.

3. The doctoral thesis is a dissertation in the French part of the country. In the Dutch part of the country it can be a previously unpublished substantial written report, or a collection of individual or co-authored scientific papers with an introduction and/or commentary.

Oral Presentation of Thesis Work

1. <u>Languages</u> normally used: English and French (specially used in the French part of the country). Although permitted, alternative languages are rarely used: Flemish and German.

2. Oral presentation with oral examination for a closed audience behind close doors in the French part of the country. In the Dutch part of the country there is an oral presentation for an open audience.

3. <u>Duration</u>: typical duration from 45 min or 1 hour to 2 hours including examination (upper time limited).

1.5.4. Examination

Thesis Examination Board

1. <u>Composition</u>: from three internal examiners and two external examiners to several members. In the Dutch part of the country there is also an independent chairman.

2. <u>Selection</u> by the supervisor and/or by the scientific committee of the institution and/or by the rector or equivalent.

Evaluation

1. <u>Result</u> based on the reading of the thesis and the oral presentation of the thesis work. There isn't a grading system, but in special circumstances there can be "felicitations of the jury" in extra.

2. <u>If the student fails</u>, he/she may resubmit a revised thesis within a few months or do further work as specified by the examination board. Normally, the commission only advises the faculty for the presentation of the thesis when she thinks the student is ready.

1.6. Questionnaires

Belgium (Flemish)

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3.1- SUPERVISION OF DOCTORAL STUDIES

3.1.1	Are the doctoral studies supervised by a Scientific Board/supervisor? If no, please proceed to 3.1.5.	<u>YES</u> /NO
3.1.2	How many members are in the Scientific Board?	6
3.1.3	Likely 6 or more. At least 2 from the own research group, at least two of ot research groups generally two or more (preferably international) assessor because of there expertise (plus people from dept./faculty/administration of university). The president of the commission is not from the departmen student and is nominated by the Chancellor of the university. How are the members of the Scientific Board chosen?	rs. Others of the
3.1.3.1	Elected by the Faculty, Department?	<u>YES</u> /NO
3.1.3.2	Chosen by the student?	YES/ <u>NO</u>
3.1.3.3	Chosen in another way? Please specify:	YES/ <u>NO</u>
3.1.4	Which are the main tasks of the Scientific Board/ Supervisor?	
3.1.4.1	General management of the doctoral studies.	<u>YES</u> /NO
3.1.4.2	Deciding the layout of the course, advising the students on their coursework.	<u>YES</u> /NO
3.1.4.4	Assigning the thesis subject.	<u>YES</u> /NO
3.1.4.5	Other. Please specify:	<u>YES</u> /NO
	In the end, advise the faculty if the student may present the thesis.	
3.1.5	Does the student need a personal supervisor during her/his studies?	<u>YES</u> /NO
3.1.5.1	Does the same person supervise her/his thesis work?	<u>YES</u> /NO
3.1.6	Must the subject of the doctoral thesis be an active research area in the department?	YES/ <u>NO</u> 1
	¹ But this is the case for more then 99%.	

3.1- SUPERVISION OF DOCTORAL STUDIES

3.1.7	The doctoral thesis subject is normally assigned:	
3.1.7.1	At the beginning of the doctoral studies?	YES/NO ²
3.1.7.2	After a specified period of coursework?	YES/ <u>NO</u> ³
3.1.7.3	Other. Please specify:	

² but it can be steered upon progress of the student or progress of science.
³ No, but several courses generally have to be taken in the beginning of the doctoral studies.

- **3.1.8** The thesis supervisor of a doctoral student can be:
- 3.1.8.1 Any professor or lecturer in the department? YES/NO⁴ 3.1.8.2 Any researcher in the department? YES/NO In this case, is there a need for a second supervisor who is a 3.1.8.2.1 YES/NO professor or lecturer in the department? 3.1.8.3 Any researcher in another institution? YES/NO 3.1.8.3.1 In the latter case, is there a need for an internal supervisor? YES/NO⁵
- **3.1.8.4** Other methods. Please specify:

⁴ But minimum PhD level is required and only for nominations of the highest academic levels. ⁵ Many times, there is a co-promoter. He can be from another university. See also 3.1.2.

- **3.1.9** The thesis subject is assigned by:
- **3.1.9.1**Agreement between the student and the proposed supervisor?YES/NO**3.1.9.2**Other methods. Please specify:YES/NO

A resolution of the Scientific Board, without taking into account the preferences of the students. The board looks how it can best obtain the aim of the study. In this way personal capabilities of the student come into the play. The students interest for the subject is mandatory

3.2- COURSE WORK

3.2.1	Do the students have to take coursework during their doctoral degree preparation? If no, please proceed to 3.3.			<u>YES</u> /NO	
3.2.2	Extension and assessment.				
3.2.2.1	What is the number of contact hours spent in coursework in each year?	Year 1	Year 2	Year 3	Year 4
		hrs	hrs	hrs	hrs
3.2.2.2	In general during the first and sometimes second year courses on subjects he needs for his PhD work. Some sometimes it is for over 60ECTS. This is settled for eac strengths and weaknesses. Other tasks, such as prese the needed ECTS. The courses are many times specia own university or at other universities. In which form is this coursework offered?	times thi ch studen enting pa	s is for a it depend pers car	bout 30E ding on h n count te	ECTS; nis owards
	- As specialist graduate course units.				
	- As course units taken from the undergraduate programme.				
	- Other. Please specify.				
3.2.2.3	Is the coursework assessed by examinations? If not, p	lease giv	ve details	s: <u>YE</u>	<u>s</u> /NO
3.2.3	Credit system				
3.2.3.1	Is the coursework in your institution described by a cre	edit syste	m?	<u>YE</u>	<u>s</u> /NO
3.2.3.2	Is it the ECTS system?			<u>YE</u>	<u>s</u> /NO
	If not, what is the relationship with ECTS?				
3233	How many credits are allocated to coursework?				

3.2.3.3 How many credits are allocated to coursework? ____ credits ____ credits ____ Credits

3.2- COURSE WORK

3.2.4 Monitoring

3.2.4.1	Do you monitor the performance of the doctoral student taking coursework?	<u>YES</u> /NO
3.2.4.2	What regulations apply in case of failure in one or more course units?	
	- Retake the exam.	<u>YES</u> /NO
	- Take a different course unit.	<u>YES</u> /NO
	Generally exams are retaken, but many times the PhD is stopped here results are obtained.	e if no good
3.3- Pres	sentation of work results:	
3.3.1	In the department.	<u>YES</u> /NO
3.3.2	At national conferences.	<u>YES</u> /NO
3.3.3	At international conferences.	<u>YES</u> /NO
3.4- Con	These days it is unlikely that you get a PhD without papers and work presented international seminars/conferences. Minimum requirements: one publication at level, two seminars about the PhD work or on general subject and one internat congress, and one set of seminars with positive grading, and a regular demons progress for the PhD commission. tribution to teaching:	international ional
3.4.1	Supervision of undergraduate laboratory.	<u>YES</u> /NO
3.4.2	Teaching undergraduate courses.	<u>YES</u> /NO

Tutoring undergraduate groups, marking of undergraduate assessments/homework, coaching of master thesis work. When the mandate allows extra functions; many students take up some teaching under supervision in the department. However, when you teach for 50% for example your PhD will take longer. This teaching brings some income for the student to live on. PhD students that (cannot take) don't take any teaching as a function generally will help with small tasks keeping the dept. running. (Occasional tutoring, labs or marking). Such tasks are preferable for students who want an academic career afterwards.

4 - AWARDING OF DOCTORAL DEGREE

4.1- SUBMISSION OF DOCTORAL THESIS

4.1.1	Which language is normally used for the thesis?	
4.1.2	Are alternative languages used for the thesis? Please Specify:	YES/No
	Basically NO, other languages are permitted by the commission but are s Flemish, French and German are rarely used. English (99%).	eldom used.
4.1.3	Which language is normally used for the oral presentation and/or examination?	English
4.1.4	Are alternative languages used in the oral presentation and examination? Please Specify:	YES/NO
	Officially it can be but normally it is English. French (very low %).Flemish %).	(very low
4.1.5	Are credits allocated to the doctoral thesis?	YES/NO
4.1.6	The doctoral thesis is:	
4.1.6.1	A previously unpublished substantial written report.	<u>YES</u> /NO
4.1.6.2	A collection of individual or co-authored scientific papers with an introduction and/or commentary.	<u>YES</u> /NO
4.1.6.3	Other. Please specify:	

4.2- THESIS EXAMINATION AND DEGREE AWARDING

- **4.2.1** Is there an oral presentation of the thesis work for an open audience as part of the evaluation procedure? YES/NO
- **4.2.2** Composition of the thesis examination board. Please, give the typical number of:
- 4.2.2.1 Internal examiners.

The PhD commission most of the time is expanded with internal and external assessors.

4.2.2.2 External examiners.

Most of the time several.

4.2.2.3 TOTAL.

Other (e.g. independent chairperson) people from the dept. or faculty or university administration: <u>independent chairman as for the PhD commission</u>.

<u>YES</u>/NO

4.2- THESIS EXAMINATION AND DEGREE AWARDING

- **4.2.3** How is the examination board chosen?
- **4.2.3.1** By the supervisor.
- **4.2.3.2** By the scientific committee of the institution.
- **4.2.3.3** By the rector or equivalent.
- **4.2.3.4** By the national ministry.
- **4.2.3.5** Other. Please specify:

4.2.4	Do the examiners base their evaluation mark on:		
4.2.4.1	Reading the thesis.	<u>YES</u> /NO	
4.2.4.2	The oral presentation of the thesis work.	<u>YES</u> /NO	
4.2.4.3	Both.	<u>YES</u> /NO	
	Examiners also based their evaluation on: answers given to the examination board, answers given to the general audience, an oral examination of the candidate, including detailed questions on the thesis.		
4.2.4.4	What is the typical duration of the oral part of the thesis examination, if applicable?	1 to 2 hours	
4.2.4.5	Is there an upper limit to the duration of the thesis examination?	YES/NO	
	The commission will give the student an indication for the duration of	his .	

contribution and the president of the commission will lead the exam in general.

4.2.5 Is the oral part of the examination taken behind closed doors?

4.2.6	What happens if the student fails?	
4.2.6.1	May not resubmit for doctorate.	YES/NO
4.2.6.2	May resubmit revised thesis.	YES/NO
4.2.6.3	May do further work as specified by examination board.	<u>YES</u> /NO

4.2- THESIS EXAMINATION AND DEGREE AWARDING

- **4.2.6** What happens if the student fails?
- **4.2.6.4** If the thesis is to be re-submitted is there a time limit for this to occur? Please specify: YES/NO

Normally when the commission thinks the student is not ready; she will not advise the faculty for presenting the thesis.

4.2.7 Is there a grading system for the doctoral degree based on the quality of the work? YES/NO

Basically it is Yes Or NO. But in special circumstances there may be" felicitations of the jury" in extra (seldom).

Belgium (French)

3 - ACTIVITIES DURING DOCTORAL STUDIES

3.1- SUPERVISION OF DOCTORAL STUDIES

3.1.1	Are the doctoral studies supervised by a Scientific Board/supervisor? If no, please proceed to 3.1.5.	
3.1.2	How many members are in the Scientific Board?	
3.1.3	How are the members of the Scientific Board chosen?	
3.1.3.1	Elected by the Faculty, Department?	Y
3.1.3.2	Chosen by the student?	Ν
3.1.3.3	Chosen in another way? Please specify:	Ν
3.1.4	Which are the main tasks of the Scientific Board/ Supervisor?	
3.1.4.1	General management of the doctoral studies.	Y
3.1.4.2	Deciding the layout of the course, advising the students on their coursework.	Y
3.1.4.4	Assigning the thesis subject.	Ν
3.1.4.5	Other. Please specify:	
3.1.5	Does the student need a personal supervisor during her/his studies?	Y
3.1.5.1	Does the same person supervise her/his thesis work?	Y
3.1.6	Must the subject of the doctoral thesis be an active research area in the department?	Y
3.1.7	The doctoral thesis subject is normally assigned:	
3.1.7.1	At the beginning of the doctoral studies?	Y
3.1.7.2	After a specified period of coursework?	N
3.1.7.3	Other. Please specify:	N

3.1- SUPERVISION OF DOCTORAL STUDIES

3.1.8	The thesis supervisor of a doctoral student can be:				
3.1.8.1	Any professor or lecturer in the department?			Y	
3.1.8.2	Any researcher in the department?			N	
3.1.8.2.1	In this case, is there a need for a second supervisor professor or lecturer in the department?	who is	а		
3.1.8.3	Any researcher in another institution?			Ν	
3.1.8.3.1	In the latter case, is there a need for an internal supe	visor?)	Y/N	
3.1.8.4	Other methods. Please specify:			Y/N	
3.1.9	The thesis subject is assigned by:				
3.1.9.1	Agreement between the student and the proposed super	visor?		Y	
3.1.9.2	Other methods. Please specify:			N	
3.2- COL	JRSE WORK				
3.2.1 3.2.2	Do the students have to take coursework during their doctora preparation? If no, please proceed to 3.3. Extension and assessment.	al degre	e	Y	
3.2.2.1	What is the number of contact hours spent in Y coursework in each year?	ear 1	Year 2	Year 3	Year 4
	30	0 hrs	0 hrs	0 hrs	0 hrs
3.2.2.2	In which form is this coursework offered?				
	- As specialist graduate course units.			Y	
	- As course units taken from the undergraduate programme.			N	
	- Other. Please specify.				
		·	a alata''		

3.2.2.3 Is the coursework assessed by examinations? If not, please give details:
N
Personal work directly linked to the research.

3.4.2

Teaching undergraduate courses.

Υ

Ν

3.2- COURSE WORK

3.2.3	Credit system	
3.2.3.1	Is the coursework in your institution described by a credit system?	Y
3.2.3.2	Is it the ECTS system?	Y
	If not, what is the relationship with ECTS?	
3.2.3.3	How many credits are allocated to coursework?	2 or 3
3.2.4	Monitoring	
3.2.4.1	Do you monitor the performance of the doctoral student taking coursework?	N
3.2.4.2	What regulations apply in case of failure in one or more course units?	
	- Retake the exam.	
	- Take a different course unit.	
3.3- PRE	SENTATION OF WORK RESULTS:	
3.3.1	In the department.	Y
3.3.2	At national conferences.	N
3.3.3	At international conferences.	N
3.3- CON	TRIBUTION TO TEACHING	
3.4.1	Supervision of undergraduate laboratory.	V

4 - AWARDING OF DOCTORAL DEGREE

4.1- SUBMISSION OF DOCTORAL THESIS

4.1.1	Which language is normally used for the thesis?				
4.1.2	Are alternative languages used for the thesis? N Please Specify: N				
4.1.3 4.1.4	Which language is normally used for the oral presentation and/or examination? Are alternative languages used in the oral presentation and examination? Please Specify:	French or English NO			
4.1.5	Are credits allocated to the doctoral thesis?	N			
4.1.6	The doctoral thesis is:				
4.1.6.1	A previously unpublished substantial written report.	N			
4.1.6.2 4.1.6.3	A collection of individual or co-authored scientific papers with an introduction and/or commentary. Other. Please specify:	Ν			
	Dissertation.				
4.2- THESIS EXAMINATION AND DEGREE AWARDING					
4.2.1 4.2.2	Is there an oral presentation of the thesis work for an open audience as part of the evaluation procedure? Composition of the thesis examination board. Please, give the typical number o	NO f:			
4.2.2.1	Internal examiners.	3			
4.2.2.2	External examiners.	2			
4.2.2.3	TOTAL.	5			

4.2- THESIS EXAMINATION AND DEGREE AWARDING

4.2.3	How is the examination board chosen?				
4.2.3.1	By the supervisor.	Y			
4.2.3.2	By the scientific committee of the institution.	Y			
4.2.3.3	By the rector or equivalent.	Y			
4.2.3.4	By the national ministry.	N			
4.2.3.5	Other. Please specify:				
4.2.4	Do the examiners base their evaluation mark on:				
4.2.4.1	Reading the thesis.	Y			
4.2.4.2	The oral presentation of the thesis work.	Y			
4.2.4.3	Both.	Y			
4.2.4.4	What is the typical duration of the oral part of the thesis examination, if applicable?	45 minutes			
4.2.4.5	Is there an upper limit to the duration of the thesis examination?	Y			
4.2.5	Is the oral part of the examination taken behind closed doors?	Y			
4.2.6	What happens if the student fails?				
4.2.6.1	May not resubmit for doctorate.	N			
4.2.6.2	May resubmit revised thesis.	Y			
4.2.6.3	May do further work as specified by examination board.	Y			
4.2.6.4	If the thesis is to be re-submitted is there a time limit for this to occur? Please specify:	Y			
	A few months.				
4.2.7	Is there a grading system for the doctoral degree based on the quality of the work?	Ν			

BE: België - Belgique - Belgien (Belgium)

Universities			
City	Name of the institution	http address	
Unive	ersities (Flemish community)		
Antwerpen	Universiteit Antwerpen (UIA, RUCA, UFSIA)	http://www.ua.ac.be/	
Brussel	Vrije universiteit Brussel (VUB)	http://www.vub.ac.be/	
Brussel	Katholieke Universiteit Brussel (KUB)	http://www.kubrussel.ac.be/	
Diepenbeek	Limburgs Universitair Centrum (LUC Diepenbeek)	http://www.luc.ac.be/	
Gent	Universiteit Gent (RUG)	http://www.rug.ac.be/	
Leuven	Katholieke Universiteit Leuven (KULeuven)	http://www.kuleuven.ac.be/	
<u>Univ</u>	ersities (French community)		
Bruxelles	Université libre de Bruxelles	http://www.ulb.ac.be	
Liège	Université de Liège	http://www.ulg.ac.be	
Louvain	Université catholique de Louvain	http://www.ucl.ac.be	
Mons	Faculté polytechnique de Mons	http://www.umh.ac.be	
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Universities of professional education

City	Name of the institution	http address
Universities of	professional education in EIE (Flemish	
Antwerpen	community) Artesis Hogeschool Antwerpen	http://www.artesis.be
Antwerpen	Karel de Grote-Hogeschool-Katholieke Hogeschool Antwerpen	www.kdg.be
Brugge- Oostende	Katholieke Hogeschool Brugge-Oostende	http://www.khbo.be
Brugge- Oostende	Hogeschool West-Vlaanderen	http://www.hogeschool-wvl.be
Brussel	Hogeschool voor Wetenschap & Kunst	http://www.wenk.be
Brussel	Erasmushogeschool Brussel	http://www.ehb.be
Gent	Hogeschool Gent	http://www.hogent.be
Gent	Katholieke Hogeschool Sint-Lieven Gent	http://www.kahosl.be
Kempen	Katholieke Hogeschool Kempen	http://www.khk.be
Kortrijk	Katholieke Hogeschool Zuid-West- Vlaanderen	http://www.katho.be
Leuven	Groep T Hogeschool Leuven	http://www.groept.be
Limburg	Hogeschool Limburg	http://www.hogelimb.be
Limburg	Katholieke Hogeschool Limburg	http://www.khlim.be
Universities of	professional education in EIE (French community)	
Arlon	Haute Ecole de la Communauté française du Luxembourg Schuman	http://www.hers.be
Bruxelles	Haute Ecole de Bruxelles	http://www.heb.be
Bruxelles	Haute Ecole de la Communauté française Paul-Henri Spaak	http://www.isib.be/spaak
Bruxelles	Haute Ecole Léonard de Vinci	http://www.vinci.be
Liège	Haute Ecole Charlemagne	http://www.hecharlemagne.be
Liège	Haute Ecole de la Province de Liège Rennequin Sualem	http://www.prov-liege.be/hers
Mons	Haute Ecole de la Communauté française du Hainaut	http://www.hecfh.be
Mons	Haute Ecole Roi Baudouin	http://www.herb.be