

## **Regulation**

made on the 12<sup>th</sup> May 2003 (Stand April 6<sup>th</sup>, 2009)

### **for the award of the doctorate degree at the Faculty of Science of the University of Fribourg**

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#### **The Faculty of Science of the University of Fribourg**

In accordance with articles 78, 79 and 88, of the Statutes of the University of Fribourg, approved on the 31<sup>st</sup> March 2000;

In accordance with articles 9, 40 and 45, of the Statutes of the Faculty of Science, approved on the 25<sup>th</sup> June 2001;

*Decide:*

#### **Article 1 Academic grades**

<sup>1</sup> The Faculty confers the following academic grades - Doctor of Mathematics (*Doctor scientiarum mathematicarum*, Dr sc. math.), Doctor of Computing Science (*Doctor scientiarum informaticarum*, Dr sc. inf.), Doctor of Science (*Doctor rerum naturalium*, Dr rer. nat.) and thereby attests the capacity of the awardee to carry out scientific research of high quality based on the presentation of original and personal work (thesis), an oral examination, and a public presentation.

<sup>2</sup> The Faculty can also confer the academic grade of Doctor *honoris causa* (Dr h.c.) in recognition of outstanding contributions to science.

## **DOCTORAL STUDIES**

#### **Article 2 Study structure**

<sup>1</sup> Doctoral studies consist of:

- a) doctoral research;
- b) a doctoral thesis;
- c) a doctoral examination.

<sup>2</sup> The doctoral examination includes a defence and a public presentation.

#### ***a. Admission requirements and inscription***

#### **Article 3 Admission**

Before being admitted to a doctoral degree a candidate shall:

1. possess a Master of Science awarded by the Faculty or a similar qualification awarded by a scientific Faculty from a Swiss University or Swiss Federal Institute of Technology or a qualification recognised to be equivalent by the Faculty, and
2. designate, using the appropriate form obtainable from the Dean's office (Annex I), the person willing to supervise the research work.

#### **Article 4 Derogation**

If the requirement in art. 3§1 is not satisfied the Faculty may accord a derogation. The candidate, however, may be required to pass an admission examination or to successfully follow a pre-doctoral programme.

#### **Article 5 Inscription at the the University**

<sup>1</sup> Doctoral students shall be registered at the University throughout all of the studies, i.e. until the end of the semester during which the doctoral examination takes place.

<sup>2</sup> He/she shall be registered for a minimum of four semesters before being permitted to sit the doctoral examination.

<sup>3</sup> He/she can not be registered simultaneously in a doctoral programme in another University, unless a convention of joint supervision has been established.

#### **Article 6 Normal period of study**

In general the normal period of study for the doctorate should not exceed four years.

#### ***b. Doctoral work***

##### **Article 7 aim**

The aim of the doctoral work is research in one of the scientific disciplines of the Faculty.

##### **Article 8 Requirements**

The candidate will be initiated in a scientific discipline and shall carry out personal research. He or she shall learn to plan and carry out practical and theoretical work, be able to critically assess the results obtained, and be able to communicate those results both orally and in the form of a scientific publication. The candidate shall also deepen his/her general scientific knowledge in the chosen discipline. In general his/her capacities of innovation and decision making, efficiency, flexibility and scientific responsibility shall be developed.

##### **Article 9 Supervision**

The doctoral research work shall be supervised by a professor or, after consent of the Faculty, a privat-docent, lecturer, senior lecturer or adjunct professor attached to the Faculty.

##### **Article 10 Location of the research student**

The research work shall be conducted in the department of the Faculty where the supervisor is engaged. The Faculty may permit the candidate to carry out the research work in other Swiss universities, national or international research centres, university hospitals, industrial concerns or any other appropriate institution.

##### **Article 11 Monitoring student progress**

<sup>1</sup> At the end of the first year of study, at the very latest, the supervisor shall decide, on the basis of the candidate's capacity and the results obtained, whether the doctoral research work shall be continued.

<sup>2</sup> If the student's candidature is terminated, the student can be re-admitted, under the conditions given in Art. 3, for as long as another qualified person is willing to supervise the research work.

## **Article 12 Further development**

The doctoral candidate shall further his/her scientific knowledge by attending appropriate courses. The thesis supervisor shall decide, according to the guidelines set by the department where he is engaged, the necessity of attending a particular course and the way in which the student shall demonstrate his active participation.

### ***c. Doctoral thesis***

## **Article 13 Publication**

<sup>1</sup> The results of the research work shall be presented in a doctoral thesis. This thesis shall show the capacity of the doctoral candidate to clearly demonstrate the results obtained and their relationships not only scientifically but also correctly concerning redaction and graphic presentation.

<sup>2</sup> The doctoral candidate and the thesis supervisor shall publish the results of the research work in recognized scientific journals.

## **Article 14 Languages and summaries**

<sup>1</sup> In agreement with the thesis supervisor, the thesis shall be written in German, French, Italian or English. There shall be a summary of one to two pages in English and in at least one of the other three languages (Annex II).

<sup>2</sup> The publications and manuscripts of publications that have been accepted for publication can be included in the thesis, itself, for as long as they are accompanied by text related to the subject matter. The individual contribution of the candidate, however, shall be clearly indicated.

### ***d. Doctoral examination***

## **Article 15 Jury**

At the end of the research work the Faculty shall choose, upon the recommendation of the thesis supervisor, a jury comprising:

1. the president or a deputy of the department concerned who will act as president of the jury,
2. the thesis supervisor acting as examiner
3. one or more co-examiners, of which at least one must be external to the University of Fribourg, chosen with agreement of the candidate.

## **Article 16 Inscription for the examination**

<sup>1</sup> A doctoral candidate who has been registered for the minimum number of semesters may, at any time, register for the doctoral examination. He/she shall announce themselves at the Dean's office and submit (at least 30 days before the envisaged date of the examination) the following documents:

- a) the thesis accompanied by the title page ready for printing (see annex II)
- b) a *curriculum vitae*,
- c) a written declaration of honour certifying that the candidate composed the thesis him/herself and that the thesis contains personal research carried out without illicit help,
- d) proof of payment of the examination fees

<sup>2</sup> The Dean shall control that the conditions given in art. 5 have been satisfied.

### **Article 17 Examiners**

The examiner and the co-examiners shall each submit a written report on the thesis for the attention of the Dean. The report shall be terminated with a recommendation to accept or refuse the thesis. The thesis supervisor shall be responsible for handing over, at least 30 days before the envisaged date of the examination, the examiners' reports to the Dean's office.

### **Article 18 Circulation of the thesis**

For a period of two weeks, the Dean shall circulate amongst the professors of the department concerned, the thesis, the examiners' reports and the documents mentioned in art. 16. If doubts are expressed, particularly concerning the quality of the science, by either the examiners or professors of the department concerned, the Dean shall announce that the thesis and the reports can be consulted by all of the professors of the Faculty Board at the Dean's office (see annex III).

### **Article 19 Acceptation**

The jury shall accept or refuse the thesis taking into account any remarks made by the professors of the Faculty Board.

### **Article 20 Re-submission**

If a thesis is refused, the doctoral candidate can rewrite the thesis and re-submit it for final examination.

### **Article 21 Convocation**

If the thesis is accepted, the Dean shall convoke the candidate to a thesis defence (oral examination). In general, the oral examination shall take place a minimum of 30 days after receipt at the Dean's office of the thesis and related reports.

### **Article 22 Thesis defence**

<sup>1</sup> The defence shall take place *in camera* in the presence of the president and at least two of the examiners and normally lasts 60 minutes.

<sup>2</sup> The defence shall consist of a short presentation by the doctoral candidate of the scientific results contained in the thesis followed by an oral examination conceived as a discussion pertaining to the relevant scientific domain.

### **Article 23 Decision**

<sup>1</sup> Immediately after the oral examination, the jury shall decide whether the defence was satisfactory. Should the defence be judged unsatisfactory, it may be repeated once more, but at least three months later.

<sup>2</sup> The jury shall immediately inform the candidate of its decision and communicate it to the Dean's office.

### **Article 24 Public presentation**

<sup>1</sup> The public presentation consists of a conference where the doctoral candidate presents the results obtained during the research work and places them in their correct context. The conference shall be followed by a discussion. The candidate shall take into account the fact that the audience is public.

<sup>2</sup> The public presentation shall only take place after a successful thesis defence and within one month.

### **Article 25 Communication**

Once the public presentation has taken place, the Dean shall give to the candidate, on the basis of the approval of the thesis, the thesis defence and the public presentation, written confirmation of the award of the grade of Doctor. The Dean shall also inform the Faculty Board.

### **Article 26 Printing of the thesis**

After the thesis defence the candidate shall give the Dean the original version of the thesis, if necessary modified according to the recommendations of the jury, in a form ready for printing. If the thesis conforms to the directives given in annexe II (Directives concerning the preparation and lodging of the obligatory copies of the thesis), the Dean shall accord the status « Ready for printing ». Within the following six months, the candidate shall hand over to the Dean's office the original version of the thesis and the required number of obligatory copies. It is only then that the candidate shall have the right to use the title « Doctor ».

## **DOCTORAT HONORIS CAUSA**

### **Article 27 Procedure**

<sup>1</sup> One or several members of the Faculty Board can propose that the Faculty confers the title of Doctor *honoris causa* to persons of outstanding scientific merit.

<sup>2</sup> The agreement of  $\frac{3}{4}$  of the professors by secret ballot is necessary to ratify the proposal.

### **Article 28 Communication**

The Dean shall announce the award of the title Doctor *honoris causa* at the *Dies academicus* of the University.

## **FINAL DISPOSITIONS**

### **Article 29 Authority**

The Faculty committee shall be responsible for any decision concerning circumstances not governed by this regulation.

### **Article 30 Abrogation**

The entry into force of the present regulation shall abrogate the regulation of the 22nd November 1993 governing the award of a doctorate at the Faculty of Science of the University of Fribourg. Students having already started their research work before the entry into force of the present regulation shall be able to terminate their candidature, within four years, under the conditions of the former regulation.

### **Article 31 Entry into force**

The present regulation shall enter into force after its ratification by the State department for education, culture and sport.

Approved on the 3rd June 2003 by the Rectorate of the University.

Ratified on the 12th June 2003 by the State department for education, culture and sport.

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*The present translation into English is for information only. Only the French version «Règlement pour l'obtention du doctorat à la Faculté des sciences de l'Université de Fribourg» or the German version «Reglement über die Erlangung der Doktorwürde an der Mathematisch-Naturwissenschaftlichen Fakultät der Universität Freiburg» are valid.*