Action and development plan for the PhD School

Faculty of Science (SCIENCE) 2020-2022

November 2019
Action and development plan for the PhD School

The PhD School supports all PhD students enrolled at the 12 departments at the Faculty of SCIENCE. It is one of the flagships of the Faculty and is the second largest PhD School in Denmark. The PhD school organises training and education of researchers in all areas of science. Through competitive selection of candidates, qualified PhD supervisors and by providing the highest standard of PhD education, the school aims to attract the best candidates and to ensure scientific excellence among the next generation of researchers.

Currently, almost 1,100 PhD students are enrolled, and every year, approximately 300 new candidates will commence a PhD study at SCIENCE. Around 300 PhDs graduate per year, and continue their career in the private or public sector – in Denmark or abroad. A strong focus on further enhancing the quality of the PhD programme at SCIENCE is now more important than ever.

The Action and development plan will address some focus areas that will guide/enable the faculty and PhD School to fulfil these ambitions. The plan especially draws on the recommendations given by the international panel that evaluated the PhD School in September 2019, but also on recommendations from internal evaluations and former action and development plans of the PhD School.

The evaluation from the panel was, overall, very positive, but it also stressed, that there is still room for improvement. The recommendations from the panel are included in the following six focus areas.

- Enrolment and internationalization
- Employment after the PhD
- Courses
- Supervision
- Governance and quality assurance
- Infrastructure and Administration
Enrolment and Internationalization

The PhD School will focus on ensuring the continued high quality and relevance of the PhD projects and aims to attract the best candidates – regardless of their citizenship.

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| Attracting the best candidates | To attract the best candidates nationally and internationally through a wide selection of attractive study structures and new initiatives | - Continue to advertise scholarships internationally  
- Continue to refine existing PhD schemes (5+3, 3+5, double degree, Industrial PhD)  
- Explore further new financing initiatives | Departments, PhD School | 2020- |
|                       |                                                                      | - Continue to enrol students with own external funding on the condition that  
  o The funding/allowance is sufficient  
  o The candidates are given the opportunity to gain experience in teaching activities  
  o The candidates are recruited as independent researchers and not as advanced technical aid | Departments | 2020- |
|                       |                                                                      | - Ensure that all candidates hold adequate language skills that enable them to teach undergraduate students in Danish or English | Departments | 2020- |
|                       |                                                                      | - Further investigate the possibility to offer fully funded SCIENCE PhD stipends | Departments, PhD School | 2020- |
| International PhD students | To provide an international atmosphere at the faculty e.g. to further strengthen access to international networks | - Continue to monitor the balance across nationalities | Departments, PhD School | 2020- |
Employment after the PhD
Growing competition in the labour market gives rise to increased focus on career planning and guidance in the PhD programme. Only a minor fraction of the PhD graduates will be employed within academia. Thus, the PhD School will work to encourage open discussions about the employment possibilities for the individual students.

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| Career guidance  | Give PhD students the knowledge and tools needed to prepare for a career in academia, industry, or elsewhere | ▪ Offer all PhD students (bi)annual career events (Career days)  
▪ Investigate the possibilities to match PhD students with mentors  
▪ Encouraging industrial (or other, e.g. ministerial) placements where mutually beneficial  
▪ Introduce a tool for professional development plans that is continuously updated by the PhD student with findings about competences, preferences and realistic future career opportunities | SCIENCE Private and Public Sector Services Faculty, Departments  
PhD School, HR | 2020- |


Courses
The PhD School aims to produce PhD graduates with research skills as well as complementary competencies by offering a broad selection of relevant high-level courses.

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| Scientific courses          | To increase the diversity of scientific courses offered by the faculty | ▪ Continue to encourage departments to implement incentives for arranging PhD courses.  
                                 |                                                                      | ▪ Investigate if the course range offered to PhD students corresponds to the needs of students at SCIENCE | PhD School, departments    | 2020-          |
|                             |                                                                      | ▪ Investigate the possibility of labelling more MSc courses also as PhD courses | Departments                 |                |
|                             |                                                                      | ▪ Encourage PhD students to take some of their courses at other universities | Departments                 |                |
| Generic courses             | To support PhD students to make future career choices               | ▪ Establish courses on career development                                         | Private and Public Sector Collaborations Office, HR | 2020-          |
| RCR & Open Science and Data Management | To secure the awareness of responsible conduct of research (RCR) among the PhD students | ▪ Continue to offer and develop courses on Responsible Conduct of Research  
                                 |                                                                      | ▪ Develop and offer a course on Open Science and Data Management | The faculty, PhD School, departments | 2020-          |
**PhD Supervision**

*Good supervision is based on a trusting relationship between the PhD students and their supervisor(s). It is crucial that students and supervisor(s) create an open dialogue on aspects of the PhD programme and align their expectations of the PhD study programme.*

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| **Supervision during the PhD study** | To ensure the best possible supervision for PhD students at SCIENCE | ▪ Focus on matching the expectations of student and supervisor(s)  
▪ Focus on how to build the best possible PhD student-supervisor relationship based on, for instance, the advice in “To Lead the Way”  
▪ Encourage all-round supervision of students through supervisor teams / two or more supervisors per PhD student  
▪ Investigate and decide on the student / supervisor ratio | Departments, PhD School | 2020-              |
| **Offering the best supervision** | To strengthen the skills of supervisors at SCIENCE | ▪ Continue to offer a course for PhD supervisors and focus on the quality of the course  
▪ Encourage the establishment of supervisor networks to share experiences and exchange ideas  
▪ Ensure that supervisors and students are aware of the larger framework of support which exists within the university system | UCPH  
PhD committee  
PhD School | 2020-              |
| **The perfect PhD plan** | To secure that all supervisors assist new students in the making of an adequate PhD plan | ▪ Make a user guide on how to make a consistent PhD plan, incl. a few examples  
- Relevant project description (e.g. divided into blocks)  
- Relevant courses that support the project and student  
- Relevant change of scientific environment that fit well into the research project  
- A realistic time plan | PhD committee (working group) | 2020-              |
| **Career supervision** | PhD students have the | ▪ Inform PhD students and PhD supervisors | Private and Public Sector | 2020-              |
| knowledge needed to decide whether to pursue a career in academia, industry, or elsewhere | about employment statistics to promote an open discussion of possible career paths also outside academia | Collaborations Office |
Governance and quality assurance
The members of the PhD committee and the PhD coordinators play an important role in the quality assurance of the faculty’s PhD programme as well of the individual PhD programmes. The PhD School will strengthen the possibility for the PhD coordinators to carry out their duties.

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| **The PhD coordinator** | To ensure that the individual PhD coordinator has the possibility to conduct the duties as PhD coordinator | - One PhD coordinator per 25-30 students  
- Establish a PhD coordinator network  
- Workshops for PhD coordinators introducing e.g. coaching strategies  
- Ensure that PhD coordinators are aware of the larger framework of support which exists within the university system | Departments, PhD School | 2020- |
| | More equal gender balance among PhD coordinators | - Encourage more female senior researchers as PhD coordinators | Departments | 2020- |
| **Quality Assurance** | To ensure the highest standard of PhD education and to use the tools of the programme for the benefit of the student | - Use the PhD Plan more actively as a project management tool  
- Use start-up and status seminars as milestones to ensure progress and follow up on each PhD student  
  - Consider external participation at the status seminar  
- Use Progress Assessment Reports more proactively to secure necessary progress in the study programme and as a means for early detection of potential problems | PhD supervisors | 2020- |
| **More awareness of the importance of the PhD committee** | Explain to the PhD students the need and relevance of being member of the PhD committee | - Ensure that there is sufficient knowledge of the work and tasks of the PhD committee  
- Encourage PhD students to seek election  
- Encourage reducing the amount of work assignments for department (“duty work”) for PhD student members of the committee | PhD School, Departments, Faculty | 2020- |
## Infrastructure and administration

*The infrastructure and administration behind the PhD programme, e.g. IT solutions and guidelines, should support the PhD student research and ensure that relevant information is available when and where needed.*

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| **Communication**                   | To improve the service level for PhD students and staff at the faculty | ▪ Further develop the PhD School website  
▪ Explore possible ways to communicate with PhD students, e.g. via local staff at department level | PhD School                 | 2021           |
| **Conditions for PhD students**    | To secure the financial and employment-related conditions of PhD students | ▪ Provide sufficient information regarding financial matters (for instance sufficient resources to support the PhD programme as described in the PhD plan)  
▪ Provide adequate conditions for PhD students, regardless of type and place of employment and type of study programme. | SCIENCE Management Team    | 2020-          |
| **Work assignments for the department (“duty work”)** | To ensure homogeneity in teaching and other work obligations among students | ▪ Ensure that employed PhD students are aware of the rules pertaining to the “duty work”  
▪ Ensure that duties of students at departments do not extend the number of hours stated in the employment contract  
▪ Encourage the departments to let all PhD students teach on BSc or MSc courses, when possible | Departments                 | 2020-          |
| **Improving IT solutions**          | To raise the service level for the stakeholders surrounding the PhD programme | ▪ PhD Planner (the PhD administrative system)  
  - Complete the development of the system  
  - Better user guides  
  - On campus information meetings  
  - More efficient support  
▪ frontPlanner (the course administration system)  
  - Re-think the distribution of roles  
  - Better user guides | UCPH, PhD School             | 2020-          |
Background material

- Self-Assessment Report incl. enclosures, August 2019
- Panel Report, Recommendations from the international evaluation panel, September 2019
- Annual PhD Workshop, PhD School of SCIENCE, October 2019
- Action and development plan 2018-20, May 2018