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## **Programme for developing competence in research supervision at Blekinge Institute of Technology**

### **Abstract**

Development programme for research supervision at Blekinge Institute of Technology

### **Background**

The research performed at Blekinge Institute of Technology (BTH) is profiled towards applied information technology and characterised by close co-operation with enterprises and society. The main emphasis within the research activities is on technology, though IT is also an expansive research field within other areas such as the humanities, social and caring sciences. This paves the way for a high degree of interdisciplinary collaboration between researchers in the various different departments at Blekinge Institute of Technology.

In January 1999, Blekinge Institute of Technology was approved as a university-level institute in the area of technology, entitling it to perform research under its own management. These university rights have been of decisive importance for the development of the Institute and its status within the research community and in society in general.

Research is performed in the following departments:

Human Work Science and Media Technology

Business and Management

Spatial Planning

Humanities and Social Sciences

Health and Science

Mechanical Engineering

Software Engineering and Computer Science

Telecommunications and Signal Processing

The technical faculty at Blekinge Institute of Technology offers post-graduate degree courses in nine subject areas:

Computer Science

Software Engineering

Computer Systems Engineering

Applied Signal Processing

Telecommunications Systems

Human Work Science with special focus on IT  
Technoscience Studies  
Design and Digital Media  
Spatial Planning

### Competence in research supervision

The establishment of a good research culture at Blekinge Institute of Technology is a matter for the Institute as a whole and for all the departments in the Institute, regardless of whether they are in the technical faculty or not. Three important principles on which the development of research supervision competence at the Blekinge Institute of Technology must be founded are:

- that courses must be developed as team projects between the technical faculty, the humanities, social sciences and the caring sciences, in order to ensure that there is interaction between the various different supervisor cultures that serves to enrich them all. This in turn will contribute to the revitalisation of the respective scientific disciplines.
- that the links between basic education and post-graduate studies are retained.
- that the various methods of developing expertise are continuous and flexible.

### Goals for the development of research supervision

#### Goal 1

To establish a post-graduate research culture at Blekinge Institute of Technology that is marked by quality, creativity, equality, diversity and good flow.

A well-functioning post-graduate studies programme is characterised by opportunities and willingness to develop specific and supporting cultures. For a long time, academia has assumed that it exists in a "culture of no culture". Naturally (culturally), this is not the case. The question of culture in research institutions is pivotal, entailing that the development of good research environments within these cultures is a concrete task that requires support and implementation.

#### Goal 2

To succeed in motivating doctoral students and doctorate holders to become supervisors in the future.

The target group for the training in research supervision should include doctoral students, research personnel and people who recently completed their doctorate, as well as seasoned professors and senior lectures. It is also very important that the training is designed in such a way in terms of pedagogy and content that it creates strong driving forces for independent research supervisor responsibility and participation in continuous quality development. Motivating doctoral students and people who recently completed their doctorate to undertake these kinds of tasks constitutes an important recruitment issue for Blekinge Institute of Technology and for the future development of its research activities.

#### Goal 3

To increase interest among students in becoming researchers and to continue their career in academia.

The connection between basic education and research / post-graduate studies is crucial for the creation of innovative enterprises. Research learning is used as a device in the basic education offered at Blekinge Institute of Technology. A dynamic research and educational environment requires that the respective boundaries between education, research and external collaboration are kept open and flexible. This way of relating to knowledge production and the development of technology is typical of the working environment at Blekinge Institute of Technology. Strengthening the collaboration between basic education and research in specific ways and in specific areas of the development programme for research supervisors will increase the motivation for students to continue in research.

## The development programme

### Target groups

- Research fellows
- Doctorate holders and other research staff
- Professors and senior lecturers

### Forms of development of supervision competence

- An obligatory education for research supervisors marked by interaction between the various different cultures within the different disciplines, i.e. collaboration with other departments at Blekinge Institute of Technology and other seats of learning.
- Seminars and series of seminars where the target groups work together and separately.
- A long-term development programme to develop supervision specific to Blekinge Institute of Technology. Leadership and supervision skills in the context of scientific research marked by distributed research processes represent a separate and highly innovative area of expertise in which Blekinge Institute of Technology can act as a model for other educational institutions (see the profile).

### Topics

- The relationship between supervisors and doctoral students, including gender perspectives
- Learning processes in research supervision
- The Institute's policy for research supervision
- Experience in research supervision including conflict management and resolution
- Examination requirements
- Research ethics
- External financing
- Leadership in research organisations marked by distributed research processes
- Personal leadership
- Pedagogical means of communicating and relating

### Performance indicators

In order to assess the degree of attainment of the predefined goals, we will need both quantitative and qualitative performance indicators. Examples of quantitative performance indicators include the number of post-graduate students, the degree of examination, internal doctorate recruitment, etc.

Qualitative indicators are equally interesting and may include the answers to the following questions:

- What new knowledge has been generated about the nature of research supervision?
- What is the degree of motivation to assume independent research supervision responsibility, and what expression does it assume?
- Is the development programme viable and in what form? What driving forces have been developed and confirmed?

### **The project team**

Lena Trojer - vice-dean, project leader

Paul Davidsson - director of studies for post-graduate studies in the technical faculty

Danuta Fjellestad - professor, vice chairperson of the research committee

Henric Johansson - doctoral student, the section for post-graduate students

Ove Pettersson - pro vice-chancellor, responsible for research and post-graduate studies