

# **PNS0090 Real time quantitative PCR in theory and practice, 3.5 credits**

*Real time quantitative PCR in theory and practice*

**Syllabus approved:** 2011-11-29

**Subject:**

**Marking scale:** Pass / Failed

## **Prerequisites:**

Participants are expected to have some experience of basic practical molecular biology. The course is primarily for PhD students within the SLU Graduate School in Organism Biology but will be open for all interested PhD students and researchers.

## **Objective:**

The aim of this course is to provide students with the theoretical background needed for proper design of RT-qPCR experiments and to provide practical training in how to perform a RT-qPCR analysis including the interpretation and evaluation of obtained results.

## **Content**

Information about theory, experimental design, statistical analysis of results, reagents and equipment is provided in lecture format. In the practical part, participants design and perform an actual RT-qPCR experiment under supervision, preferably on their own material. Results are summarized in a report and discussed in a workshop format. The course is then concluded by a series of lectures by invited experts highlighting different RT-qPCR applications.

## **Literature:**

Will be provided at course start.

## **Examination:**

To pass the course, the students should attend all lectures, perform an RT-qPCR experiment, analyze obtained data and discuss the results in a written report as well as an oral presentation.

## **Additional information**

This course is given as a postgraduate course within the SLU Graduate School in Organism Biology (<http://www.slu.se/sv/forskarskolor/organismbiologi/>). Students are encouraged to study expression of their own gene of interest in their preferred material during the laboratory part of the course. There is no tuition fee. Maximum 20 students per course occasion.

## **Responsible department**

[Department of Plant Biology and Forest Genetics](#)

## **Location**

Uppsala