FEK3101 BioTas II Journal Club 4.5 credits

BioTas II Journal Club

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

Course syllabus for FEK3101 valid from Autumn 2013

Grading scale

G

Education cycle

Third cycle

Specific prerequisites

The course content is tuned for PhD students in the fields of MEMS, Cell Physics, biotechnology, and the

like.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After completing the course, the student should to pass the course be able to:

- Present orally the technical content of a scientific article to non-experts
- Be able to analyze and discuss scientific articles with their peers with respect to: the writing style;
- scientific statements; scientific ethics questions relating to presented data; and scientific merits and
- validity of the presented research.
- Analyze completeness and reproducibility of presented experimental procedures.
- Suggest alternative manners to formulate statements in results and discussion and conclusions
- sections in a given scientific articles.
- Be acquainted with a broad spectrum of scientific articles in the bio-, micro- and nanofluidics area.

Course contents

This course consists of a detailed study of scientific articles in the field of bio-, micro- and nanofluidics.

The course content is tuned for PhD students in the fields of MEMS, Cell Physics, biotechnology, and the

like.

Disposition

We meet every second week for discussing a specific article. One student is chosen as the presenting participant, and this on a rotation basis. The presenting student selects a "high quality / high learning factor" scientific article related to the fields of lab-on-chip, microfluidics, biosensing technologies, microscale chemical/biological/medical systems, etc, and distributes the article to the other participants. The choice of article must be approved by the course responsible.

The article discussion is divided into five different topic areas: 1) Presentation of the article performed by the student who selected it; 2) discussion on the writing style, presentation of background information, experimental details; 3) the statements made in the results and discussion sections; 4) scientific ethics; and 5) scientific merits and the validity of the conclusions made. For topic areas 2, 3, 4 and 5 discussion is led by a student selected at random from the participants at the meeting.

Course literature

N/A

N/A

Equipment

None

Examination

Based on recommendation from KTH’s coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

To be given a passing grade at the meeting, students need to prepare for all topics areas except topic area

1 and be ready to lead the discussion if selected at the meeting. All students are expected to be active

participants during the meeting.

Other requirements for final grade

The students gain 1.5 studypoints for every fifth meeting they participate in until they reach 4.5 study points.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.