

Collegial Teaching and Learning – in STEM Education

Course Information

Collegial Teaching and Learning – in STEM Education is an elective course in the pilot qualifying programme in teaching and learning in higher education run at bioCEED at UIB and UNIS. The course consists of two separate units corresponding to two plus one (= three) weeks of full-time work and is given in Norwegian and Swedish or English. The course fully meets the learning outcomes issued by the Association of Swedish Higher Education (SUHF) 14 April 2016 (Rek 2016:1), which are mutually recognised by all Swedish Higher Education Institutions.

This course introduces you to current concepts of teaching and learning in higher education in order to develop your ability to improve student learning. The course is focused on discussing pedagogical topics specifically related to STEM teaching and learning and is intended for educators who teach mainly in these subjects. The course requires no previous higher education teacher training and can be offered to both experienced teachers and those who are about to assume teaching duties.

The course is counted towards your educational activities ('undervisningsregnskap') at UIB.

Application/Admission

The application deadline is 1st of July 2016 by email to Oddfrid.Forland@uib.no.

The application should include one or two ideas/topics for the group projects that could develop and benefit your whole UIB Educational Program. Note that the participants are expected to participate in ALL scheduled activities – including the trip to Lund, June 7-9 2017.

Course directors

Roy Andersson, Førsteamanuensis II, bioCEED UIB and Senior Lecturer, Centre for Engineering Education and Dep of Computer Science LTH.
+46 46 222 49 07, Roy.Andersson@cs.lth.se

Arild Raaheim, Professor, Dep of Education UIB.
+47 55 58 25 55, Arild.Raaheim@uib.no

Assessment criteria

For a pass on the first course unit corresponding to two weeks (80 hours), participants must have attended at least 75% of the scheduled activities (session 1-4), and passed the course assignments (individual reading and group project including the project presentation in Lund).

For a pass on the second course unit corresponding to one week (40 hours), participants must have attended the scheduled activities (session 4), and passed the course assignments (individual portfolio writing and peer-review).

Scheduled activities (main topics)

Tue 25 Oct 2016, 13.15-16.00 (BIO, Bergen).

Session 1: Introduction, Requirements, Educational Programs at UIB

Thu 1 Dec 2016, 9.15-12.00 (BIO, Bergen).

Session 2: Literature reporting, Project seminar

Mon 9 Jan 2017. Last day to submit a preliminary project report to be discussed at session 3.

Wed 11 Jan 2017, 13.15-16.00 (BIO, Bergen).

Session 3: Feedback on project development

Fri 13 Jan 2017. Group by group feedback sessions on conference abstract.

Sun 15 Jan 2017. Last day to submit abstract to EuroSoTL at www.lu.se/eurosotl2017.

Thu 9 Feb 2017, 13.15-16.00 (BIO, Bergen).

Session 4: Portfolio workshop

Tue 25 Apr 2017. Last day to submit the individual teaching portfolio.

Tue 2 May 2017. Last day to submit the peer-reviewed portfolio feedback.

7-9 Jun 2017 (Lund).

Full participation at EuroSotl2017 including final project presentations.

Literature

Electronic course library: <http://libguides.lub.lu.se/genombrottetENG>

Biggs, J. & Tang, C. (2011), *Teaching for Quality Learning at University*, 4th ed, The Society for Research into Higher Education.

Handal, G. (1999), Consultation Using Critical Friends, *New Directions for Teaching and Learning*, 76, pp 59-70.

And other relevant literature to complete the course project.

Instructions to the course assignments

Literature reading (individual, part of the first course unit)

Before session 2 the following reading and writing assignments has to be completed (corresponding to 20 hours):

- Read Handal's article "Consultation Using Critical Friends, *New Directions for Teaching and Learning*, 76, pp 59-70".
- Read Bigg's article "What the Student Does: teaching for enhanced learning". Write a summary (½ page).
- Read chapter 10 in Biggs & Tang "Aligning assessment tasks with intended learning outcomes: principles". Write a reflective piece (½-1page) on your thoughts about the content.
- All participants: Choose and read a few relevant articles (of your own choice) about teaching and learning in biology. Write a reflective piece (½-1 page) on one of them where you also very short justify your choice of article and how it can benefit the education at your institution.

The writing assignments shall be handed in electronically to the course directors prior to session 2, where the assignments also shall be presented to and discussed with the other course participants in smaller groups.

Project work (in groups, part of the first course unit)

The main component of the course is the group project, addressing a teaching issue of relevance to the participants' own teaching and learning situation. The project work corresponds to 40-50 hours of work per person and is reported orally and in writing (or similar). The final project product should be a stand-alone artefact, normally a written report but other forms are accepted as long as they meet the criteria below. In addition the other course participants will give adequate feedback on the project work.

- A week before session 3 shall a draft version of the final project product (and/or other relevant work material) be sent electronically to all participants and to the course directors (see the schedule above). Then during session 3, all participants will give prepared feedback on the material orally in mixed groups.
- The final project product shall be finished before session 4, where the whole project work shall be presented (30 minutes).
- The final project product shall:
 - have departmental colleagues as target group
 - include/incorporate the use of relevant literature from the university teaching and learning field, properly referenced
 - have a developmental focus, i.e. have an improved student learning as a leading star
 - be able to work as a stand-alone product for future development use

Portfolio writing (individual, part of the second course unit)

The portfolio writing unit of the course corresponds to 40 hours of work.

- The final portfolio shall be sent electronically to the course directors before the last day to submit the portfolio (see the schedule above).
- Then all participants will give written feedback on one other portfolio that have to be completed one week later (see the schedule above).
- The final portfolio is not supposed to be a complete portfolio but shall:
 - be short and concise with a total of no more than 3 pages. It is important to be able to focus and prioritize!
 - have a part describing and discussing your pedagogical base and may have a part describing your pedagogical journey briefly
 - include concrete cases* from your own teaching where you reflect both in relation to your pedagogical base and to relevant literature from the university teaching and learning field, properly referenced

*) In a full portfolio you would most likely include several cases, but for this task one case is enough