# LÄRANDE I LTH

GENOMBROTTET - BLAD 35 - NOVEMBER 2016

Genombrottet är LTH:s pedagogiska stöd- och utvecklingsenhet som bland annat ger högskolepedagogiska kurser och beforskar undervisning och lärande. Genombrottet bistår också lärare, programansvariga och LTH-ledningen med stöd för undervisningsplanering, undersökningar och ett ramverk för högskolepedagogisk meritering.

De tre artiklarna i detta nummer av Lärande i LTH baseras på kursrapporter skrivna inom ramen för de högskolepedagogiska kurserna; Högskolepedagogiska introduktionskursen, Docentkursen och Högskolepedagogiska inspirationskursen, som ges av Genombrottet vid LTH. Två av artiklarna berör doktorandutbildningen vid LTH. Den första lyfter fram vikten av att se synergierna mellan pedagogisk kompetensutveckling och forskning inom forskarutbildningen, och då mer specifikt hur handledning av examensarbeten ökar den pedagogiska kompetensen hos doktorander, vilket i sin tur främjar avhandlingsarbetet. Den andra artikeln belyser betydelsen av att doktoranderna aktivt formulerar forskningsfrågorna inom avhandlingsarbetet. En jämförelse av doktorandernas och handledarnas uppfattning har genomförts, baserat på svar som framkommit i en enkätundersökning. Etikundervisning inom ingenjörsutbildningarna diskuteras i den tredje artikeln som beskriver hur kunskap och förståelse för olika kulturer präglar kursinnehållet i en programvaruutvecklingskurs. Hur förbereds studenterna på bästa sätt inför sin kommande yrkesroll, som innefattar krav på kompetens inom så många fler områden förutom de förväntade ämneskunskaperna?

### Innehåll

Sid 2: A pilot study on the development of pedagogical skills in PhD candidates during supervision of Master Projects -Co-cultivation of teaching and researching aspects

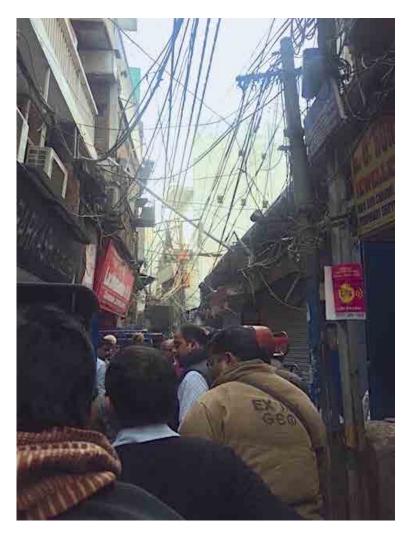
Sid 3: Becoming an independent researcher? - Prerequisites for PhD students to develop an ability to formulate research questions

Sid 5: "Soft skills" in a software engineering project course - A way of including ethical and intercultural aspects in a student project course

Sid 6: LTH:s högskolepedagogiska kompetensutvecklingskurser vintern 2016-2017

Sid 8: Kom ihåg och Kontaktinformation

Hur är det att arbeta inom en internationell projektgrupp med gruppmedlemmar i olika länder? Detta case ingår i en kurs i programvaruutveckling där kursens upplägg inriktas mot att förbereda studenterna inför deras kommande yrkesroll i en internationell miljö.



# A pilot study on the development of pedagogical skills in PhD candidates during supervision of Master Projects

#### Co-cultivation of teaching and researching aspects

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Research and teaching are two pillars of the academic activity and therefore also integrative parts of the education of doctoral students. A majority of the PhD students have in fact teaching duties, for example as laboratory assistants or as Master student tutors. There is, however, a lack of formal education for doctoral students in the pedagogy of supervision, thus resulting in a trial-by-fire approach to teaching. As a part of the PhD course Introduction to Teaching and Learning in Higher Education, we performed a pilot study on PhD-MSc student supervision interactions and how these experiences are formative in the development of the pedagogic skills of the PhD candidate. This was done by a survey sent to PhD students at two departments at the Faculty of Engineering at Lund University. We here present a condensed version of our course report, highlighting our main findings.

The dyadic ("two person-group") relationship is a common pedagogical approach to academic supervision. When reviewing literature on the topic, two approaches to dyadic supervision commonly emerge: the product-focused and the student-focused approach. The former is sometimes referred to as the master-apprentice supervision-style, where both parts of the dyad work together towards reaching and uncovering research goals [1]. Contrasting this is the student-focused (or learning-oriented) approach where the focus of the supervision is the learning and autonomy of the student in itself, and not the actual research outcome [1-3].

Many studies on supervision within academia focus on supervision models and theories (see for example [2, 4]), but to our knowledge few studies address the development of pedagogical skills in PhD students and how that influences the individual's progression in his/her academic role. It has however been shown that graduate students early in their academic career who taught in parallel with conducting research displayed significantly improved skills in experimental design and generation of testable hypotheses as compared to peers without teaching duties [5]. This suggests the importance of the co-cultivation of both the teaching and the researching aspects during the doctoral education, and that pedagogic experience is an integral part in becoming an academic.

In our study, we designed a questionnaire that was sent to all PhD students who were registered at the Department of Chemistry (KILU) and the Department of Electrical and Information Technology (EIT) in May 2016, asking only those

who had supervised at least one MSc Student to participate. The total number of respondents was 24 (17 from KILU and 7 from EIT); hence we classify this investigation as a pilot study.

Our initial expectation was that since many new PhD students have a limited pedagogical background they would feel unprepared to supervise. However, the survey results indicated the opposite, with a clear positive result on the questions related to supervision preparation and enthusiasm. This could be due to that most PhD candidates that answered the survey had taken the introductory pedagogical course at LTH (79%). Although the curriculum of this course does not address supervision directly, the participants had been given the opportunity to reflect on different pedagogical situations, and we therefore think that it is advisable to take this course - as well as other pedagogic courses - as early as possible in the PhD studies. To keep this mindset up also after the course may be challenging, so it can be helpful to consider using some hands-on pedagogic model as a tool for discussions with the supervisee regarding what level of supervision that is most suitable for him/her (see [2] and [4]).

A serious concern found from the survey was the lack of support from the supervisor of the PhD candidate in relation to the MSc supervision. One possible explanation is that supervision tends not to be considered as teaching when the project becomes too much product-focused instead of student-focused. To tackle the possible issues that might arise in the PhD supervisor - PhD student - MSc student relationship, we believe that it is imperative that the departments and research groups work actively towards creating a microculture in which teaching and pedagogy is part of the ongoing discussion.

Given the reported positive correlation between teaching experience and research skill development [5], it is crucial not to underestimate supervision as a teaching situation. To encourage PhD candidates to supervise Master projects, we suggest that more teaching hours should be awarded as the survey indicated that the actual time spent supervising in many cases is longer than the credited hours. Another suggestion is to award ECTS credits for supervision in order to underline that the department appreciates the participation of PhD students in MSc supervision. Today, such credit awards are up to the individual senior supervisor(s) of the PhD student, but it is worthwhile to consider if this should be elevated to a faculty-policy level.

Teaching by supervising others can be seen as one of the most direct teaching situations and requires the supervisors to constantly reflect upon their pedagogical skills. We found that the survey responders were aware of the need for pedagogic approaches to MSc supervision, but that the support from the departments can be further improved. It can be asserted that supervision of MSc students is highly valuable for the PhD student education and especially important for a future in academia.

#### References

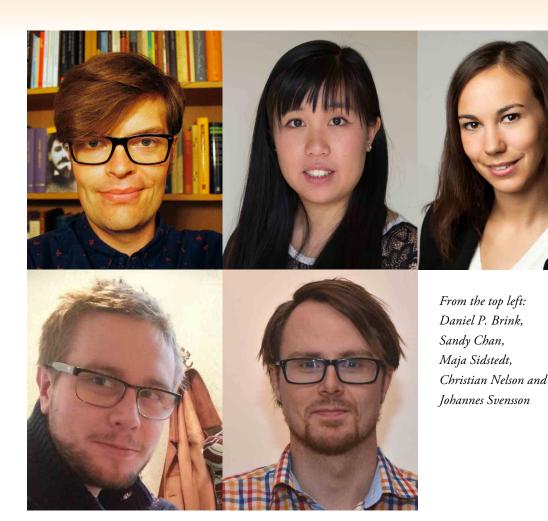
[1] Vehviläinen S, Löfström E: 'I wish I had a crystal ball': discourses and potentials for developing academic supervising. Studies in Higher Education 2016, 41(3):508-524.

[2] Gurr GM: Negotiating the" Rackety Bridge" - a dynamic model for aligning supervisory style with research student development. Higher Education Research and Development 2001, 20(1):81-92.

[3] Biggs J: What the student does: Teaching for enhanced learning. Higher Education Research & Development 2012, 31(1):39-55.

[4] Maxwell T, Smyth R: Higher degree research supervision: From practice toward theory. Higher Education Research & Development 2011, 30(2):219-231.

[5] Feldon DF, Peugh J, Timmerman BE, Maher MA, Hurst M, Strickland D, Gilmore JA, Stiegelmeyer C: Graduate students' teaching experiences improve their methodological research skills. Science 2011, 333(6045):1037-1039.



## Becoming an independent researcher?

# Prerequisites for PhD students to develop an ability to formulate research questions

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The ability to independently formulate research questions is an important goal in doctoral education, and this is also stressed in the Higher Education Ordinance (1993:100). What are the prerequisites for a PhD student to achieve this

independence at LTH? We asked 53 PhD students and 38 supervisors for their experiences and discovered among other things large variations in the conditions they express.

During a Readership course at LTH in 2015, several questions emerged concerning how PhD students achieve research independence. One specific question we often returned to was how a PhD student's ability to independently formulate research questions is developed and trained (or not...) and if there are any particular "obstructive factors" that could hamper the development of such an ability. This brief note summarises the performed study and the detailed results can be found in the full report [1] accessible via https://lup.lub.lu.se/search/

"Do you prefer and encourage your PhD-students to formulate the research questions for their entire PhD-thesis work on their own?"

In order to explore how the important ability is developed and trained, and discover potential "obstructive factors", we developed one web-questionnaire dedicated to PhD students and a separate one to supervisors. The web-questionnaires contained 14 statements and the respondents were asked to use a scale (1-5) to indicate the extent to which they agreed with the statements.

First, we asked questions related to the perceived ability to formulate research questions and whether there was an active discussion regarding this topic. An example of a statement provided to the PhD students was: "I have influenced the formulation of my research question during my PhD studies so far". An example of a statement for the supervisors was: "You prefer and encourage your PhD-students to formulate the research questions for their entire PhD-thesis work on their own."

Secondly, we asked questions related to what factors that are perceived to be "obstructive" for PhD-students in developing skills to independently formulate research questions. These potential "obstructive factors" had emerged from our own experiences as both PhD students and as supervisors, as well as from joint discussions. An interested reader could look in references [2,3] for other examples not within the scope of this work. The factors in our study included the following:

- The projects I'm involved in are not relevant to my study plan or initially planned research question
- 2. The milestones and deliverables have already been set in the projects I'm involved in, which leads to little flexibility for me to independently formulate research questions
- 3. The papers I have published are not consistent and they do not have a common theme, which leads to difficulties in defining a unifying research question
- 4. There is a lack of conversation between my supervisors and me regarding the research question of my entire PhD-thesis work
- 5. There is a lack of education and practice in developing this ability

"There is room for improvement when it comes to communication between supervisors and PhD students"

Finally, we asked questions related to other conditions for PhD-students to develop skills to independently formulate research questions. In general, the results of the study indicated that both supervisors and students were happy and satisfied overall with their experiences in this context. Most students and supervisors agreed that they had actively discussed the research questions for the entire PhD-thesis, and there was no significant difference between the answers from the two groups. Most PhD-students claimed that their supervisors preferred and encouraged them to formulate their own research questions. The students also considered that they were capable of formulating these questions independently. However, the survey indicated that notably fewer supervisors agreed with the students on these two statements. This can be interpreted as an indication of room for improvement when it comes to communication between PhD students and supervisors.

"The flexibility for the PhD-students to formulate the research question is quite low"

Among the potential obstructive factors the lack of education and practice (factor 5 above) was seen as the most significant. The inconsistency of the published papers and research questions (factor 3 above) was rated as the second most hampering factor. Irrelevance of working projects (factor 1 above) was perceived to have the least negative impact.

It is also interesting, but rather worrisome, to note that a large fraction of the supervisors claimed that the flexibility for the PhD-students to formulate the research question is quite low. A potential reason for this is that the research projects, which often already have concrete questions specified, must exist and be financed before a PhD-student can be hired, thus leaving little flexibility for a PhD-student to formulate his/her own research questions.

#### "Large variations"

It should be noted that the responses to many of the questions showed very large variations, which means that one should be careful in treating the PhD-students as a uniform group. For example, although a majority of the students claimed that the factor related to papers being inconsistent and lacking a common theme is not obstructive, there were in fact a significant number of students who claimed they do feel it is rather obstructive. Several additional questions showed a similar trend with a majority provided rather positive responses, but with a significant fraction providing much more negative answers.

Although the present study has been conducted on a limited sample and without a full statistical treatment of the data, we believe that the study has some important implications. Most importantly, supervisors need to be aware of the range of obstructive factors that may affect PhD students and actively work to avoid or mitigate them.

#### References

[1] Antfolk, C., DiJulio, D., Hassel, H., Li, Y. Z., Uhr, C., Zhang, B. 2015, "Exploring conditions for PhD students to develop abilities to independently formulate research questions" (report in Readership course 2015).

[2] B. E. Lovitts, Studies in Higher Education 2005, 30, 137-154, "Being a good course-taker is not enough: a theoretical perspective on the transition to independent

[3] R. R. Bargar, J. K. Duncan, Journal of Higher Education, 1982, 52, 1–31, "Cultivating creative endeavor in doctoral research".

# "Soft skills" in a software engineering project course

#### A way of including ethical and intercultural aspects in a student project course

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How can we prepare the students for their professional life? What "soft" skills can be trained in a project course? Is there a need to address "soft skills" during the students' engineering education? The answer to the last question is yes. In the Higher Education Ordinance (1993:100) there is a demand that the students shall be able to show the ability to make judgments with respect to relevant ethical issues and in the Swedish Higher Education act (1992:1434 5§) there is a demand that the universities in their activities shall encourage the understanding of other countries and international relations. There is also a request from industry to include "soft" skills such as ethics and intercultural knowledge in engineering educations.

With the aim of introducing more "soft" skills in the computer engineering bachelor program at LTH, Campus Helsingborg, skills such as for example teamwork, ethics, intercultural and international knowledge - it has been decided to focus on different skills in different courses. The project course "Software development for large systems" already includes teamwork and since there are different ethical aspects connected to teamwork it was decided to include ethics in a structured way in this course. The course is also given a new intercultural dimension in order to prepare the students for the fact that when computer engineers in their professional life work in projects, they often work in multicultural teams.

The project course is a mandatory course in the second year of the computer engineering bachelor program and the students work in groups of about 17 students. The students sign up for the group they want to be in. Students apply for the role as project manager and there will be two project managers in each project, in order to support each other. The project groups themselves appoint the other roles. The examination is both individually and in groups. During the course development process two other issues were also addressed; 1) to get the students more active and engaged in the pre-



Christin Lindholm

paratory lessons given as an introduction to the project and 2) to deal with situations when one or several students are contributing very little or not at all in the project, so called free-riding (see [1] and [2]). A more active approach from the students can be reached by introducing blended learning and one way of introducing blended learning is to use Flipped Classroom where the basic idea is to replace traditional lectures with active in-class activities and pre-/post-classwork [3].

The course development resulted in two new course activities (two seminars) and has also had an impact on the students' individual assignment at the end of the course. To address ethics and make the students reflect on their own norms, values and actions, discussions regarding commitments, freeriding and ground rules, group certificate and the assignment as such, were included in the first seminar. Before the seminar the students have been introduced to the terms commitment, free-riding and ground rules at a lecture. At the seminar, the students are divided into smaller groups within their project group and they discuss what commitment means to them and what they commit to when working on the project. They also discuss what a free-rider is in their context, how a free-rider will affect the group, how free-riding could be prevented and what action the group would take if freeriding is detected.

The next step for the project group is to establish ground rules; a set of expected behaviours within the group, where the prior discussion about free-riders and commitment should influence the ground rules. The ground rules and consequences for non-compliance should be documented in the project plan and reflected upon in the final report.

At the seminar, the students are also introduced to the group certificate. The group certificate is certifying that each team member has participated actively in the group work, taking responsibility for their own work and is responsible for a fair share of the collective work involved in the project. The group certificate shall be signed by all the students in the group and submitted to the course management by the end of the course. The students should discuss; a) what does it imply if I sign the certificate or if I do not, b) the role of peer pressure and fear of conflict in this context. These discussions may also influence the ground rules.

The assignment in the course is to develop a time reporting system. In the seminar the students shall discuss; a) how a time reporting system can affect people, b) the advantages and disadvantages, c) problems, d) how it can be misused, e) how the integrity can be affected. After the discussion, the Code of Honour (Sveriges ingenjörer [4]) and the Software engineering code of ethics and professional practice [5] is handed out and the students should try to map the principles to the results of the earlier discussion.

The seminar will end with a debate in which the project groups are divided into two parts, where one part argue that all persons' timesheets should be presented on the big screen in the coffee room and the other part is against it.

The second seminar is focused on intercultural aspects and for the students to be able to attend the seminar they have to prepare individually by, for example, watching a short video clip with alumni who talk about their international experience at the company that they work with and write a short summary of the material. To be allowed to participate in the seminar they must hand in the summary at the beginning of the seminar. If they miss the seminar or have not prepared, they must do a literature assignment instead. A short case addressing multicultural teams is presented to the students. The case describes an example situation regarding communication between project members in different countries and the students' task is to discuss the possible causes of the problems and suggested measures.

The seminar also includes a short presentation by the teacher of sequential and synchronous time perception and how this differs over the world. The students discuss what effect sequential and synchronous time perception has on project plans and agreements and how to work with this in multicultural teams or with companies in other countries. After that the students are presented with another short case, describing a conversation between a Swedish project leader and a project member in another country. The students shall then discuss what the project member actually means when she says yes and what the consequences are.

The examination of the ethical and intercultural aspects take place at the end of the course where the students are given a written assignment, including parts where the student shall reflect on his/her own commitment in the group, the ground rules and what activities in the project would be affected if the project had members in other countries. The student should also choose three principles from the presented code of ethics, to reflect on in relation to their own project.

The changes of the course will gradually be introduced and evaluated and during spring 2017 the first version of the updated course will be given. Learning outcomes in the syllabus will also be formulated and parts of the course are planned to be parts of the ongoing work on the incorporation of "engineering skills" in the curriculum and the optional planned certification process regarding "soft skills" in the computer engineering and electrical engineering bachelor programs at LTH, Campus Helsingborg.

#### References

- [1] Morris, R., & Hayes, C. (1997). Small group work: are group assignments a legitimate form of assessment? In Learning Through Teaching, In Proceedings of the 6th Annual Teaching Learning Forum, Murdoch University, Perth.
- [2] Maranto, R. & Gresham, A. (1998). Using "World Series shares" to fight free riding in group projects, Political Science and Politics, 31(4), pp. 789-791
- [3] Abeysekera, L. & Dawson, P. (2015). Motivation and cognitive load in the flipped classroom: definition, rationale and a call for research, Higher Education Research & Development, 34(1), pp. 1-14.
- [4] Sveriges ingenjörer. Available at http://www.sverigesingenjorer.se/Om-forbundet/Sa-tycker-vi/hederskodex/ May 2016
- [5] ACM, Avalible at http://www.acm.org/about/se-code May 2016

# LTH:s Högskolepedagogiska kompetensutvecklingskurser vintern 2016-2017

Nedan ges en kortfattad information om vinterns olika kurser. Förutom de allmänna högskolepedagogiska översiktskurserna erbjuds även mer praktiknära kurser samt individuella fördjupningskurser med förhoppningen att kunna möta intressemångfalden bland LTH:s lärare. För utförligare information (kurstider, ansökningsdatum, med mera) hänvisas till Genombrottets hemsida http://www.lth.se/genombrottet/, där det också finns information om kurser av andra kursgivare öppna för LTH-lärare.

#### Högskolepedagogisk introduktionskurs (3v)

Kursen riktar sig främst till doktorander och nyanställda lärare och är en valbar kurs inom den behörighetsgivande högskolepedagogiska utbildningen, samt inom forskarutbildningen vid LTH. Kursen ger en introduktion till högskolepedagogik och aktuell forskning inom området. Många kursmoment bygger på deltagarnas egna erfarenheter, som knyts till pedagogisk teori. Studenters lärande och situation,

examinationens betydelse och mekanismer, olika undervisningsmetoder, kommunikation och lärarens roll är exempel på områden som behandlas under veckan. Kursen syftar till att introducera deltagarna i ett tänkande kring universitetspedagogiska frågor och därmed öka deras förmåga att fatta beslut i undervisningen som gagnar alla studenters lärande. Kursen syftar också till att ge deltagarna en pedagogisk grund att bygga vidare på i deras arbete som lärare vid LTH. Sista ansökningsdag är 13 november 2016 och kursen startar 12 december 2016.

#### Projektbaserad kollegiekurs (2v)

Projektbaserad kollegiekurs är en valbar kurs inom den behörighetsgivande högskolepedagogiska utbildningen vid LTH och vänder sig främst till grupper av lärare som delar samma pedagogiska sammanhang. Kursen ges på förfrågan i samarbete med den organisatoriska enhet där deltagarna delar det pedagogiska sammanhanget. Kursen syftar till

att ge en grupp lärare, som delar ett socialt sammanhang (ämne, avdelning, etcetera), möjlighet att tillsammans fördjupa sig i för dem relevanta pedagogiska frågeställningar. Kursens huvuddel är ett projektarbete, som i normalfallet genomförs i grupp och som behandlar en för deltagarna relevant pedagogisk frågeställning. Projekten rapporteras skriftligt och muntligt inom kursen. Rapporten skall hålla en sådan kvalitet att den kan läsas av andra lärare inom Lund universitet. Förutom projektet ges inom kursen ett antal schemalagda seminarier, vars huvudsyfte är att stödja arbetet med rapporten. Litteraturstudier relevanta för projektet tillkommer.

# Projektbaserad Högskolepedagogisk kurs för adjungerade lärare (1v)

Högskolepedagogisk kurs för adjungerade lärare är en kurs inom den behörighetsgivande högskolepedagogiska utbildningen vid LTH. Kursen är en variant av LTHs översiktskurser i högskolepedagogik och riktar sig till adjungerade lärare, som har sin huvudsakliga verksamhet i näringsliv och myndigheter utanför universitetsverksamheten. Kursen syftar till att introducera deltagarna i ett tänkande kring universitetspedagogiska frågor och därmed öka deras förmåga att fatta beslut i undervisningen som gagnar studenters lärande. Kursen syftar också till att ge en pedagogisk grund att bygga vidare på som akademisk lärare och handledare i samverkan med andra LTH-lärare. Särskild vikt läggs på att den adjungerade läraren relaterar sin specialkompetens till studenters och doktoranders lärande. För att kompensera de adjungerade lärarnas begränsade fysiska närvaro på LTH används en webbplattform för kurskommunikation. För tillträde till kursen krävs att man är anställd som adjungerad lärare vid LTH. Samtliga adjungerade lärare vid LTH har tillträde till kursen (ingen platsbegränsning) och kursen ges på begäran.

#### Handledning i teori och praktik (2v)

Kursen vänder sig både till doktorander och till seniora lärare som handleder studenter på grundnivå och som vill lära sig mer om hur man som handledare kan stödja studenters lärande. Syftet med kursen är att ge deltagarna en ökad förståelse för och kunskap om handledningens betydelse för studenters lärande inom högre utbildning. Kursen utgår ifrån den kompetens som deltagarna själva har utvecklat genom sina professionella erfarenheter av att handleda studenter inom projekt- och examensarbeten. Olika aspekter av handledning kommer därför att diskuteras utifrån såväl teoretiska som praktiska perspektiv. Sista ansökningsdag är 27 december 2016 och kursen startar 10 januari 2017.

#### Den goda föreläsningen (2v eller 3v)

Kursen riktar sig främst till lärare med föreläsningserfarenhet och helst skall deltagarna också ha egna föreläsningar under den tid som kursen går. Vid fler sökande än platser på kursen prioriteras dessa personer. Kursen tar upp föroch nackdelar med föreläsningar som undervisningsform, samt ett antal konkreta metoder för hur föreläsningar kan genomföras och utvärderas. Syftet är att deltagarna efter kursen skall ha fördjupat sin förståelse för undervisningsformen och dessutom praktiskt arbetat med att utveckla sina egna föreläsningar. Kursen stödjer erfarenhetsutbyte

mellan deltagarna i form av auskultationer med mera. Sista ansökningsdag är 12 februari 2017 och kursen startar 27 februari 2017.

# Ideas for Teaching and Learning in Higher Education (3v)

Ideas for Teaching and Learning in Higher Education is an elective course of the qualifying programme in teaching and learning in higher education at LTH. The course provides an overview of teaching and learning in higher education and is intended for lecturers with some years of teaching experience and lecturers who are or have acted as course directors. The main part of the course consists of a project where the participants together develop a course or immerse themselves in an educational issue that is relevant to their practice as teachers. The project is reported in writing and should relate to relevant educational research and is also made available to all teachers at LTH. The course also consists of seminars about theories of student learning, discussion of teaching design, practical teaching, examination and evaluation of teaching. Course content is also related to formal regulations on teaching and approaches to these. Last day to register February 9 2017, course start February 28 2017.

# Introduction to Teaching and Learning in Higher Education (3v)

As a PhD student or a new teacher at LTH you are invited to Introduction to Teaching and Learning in Higher Education (this course is equivalent to the course Högskolepedagogisk introduktionskurs but given in english). 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 provides an introduction for your further professional development as a university teacher. It is focused on students and their situation including students with special needs, the role of the teacher and his/her professional development, learning as a cognitive process, different teaching methods and their effect on students learning, assessment and its impact on students learning, evaluation at different levels, communication and pedagogical qualifications for teachers in higher education. Last day to register February 12 2017, course start March 13 2017.

#### Readership Course - Docentkurs (3v)

The Readership Course is a course in preparation for appointment as a reader (docent) at LTH as well as a qualifying course in teaching and learning in higher education at LTH. The course addresses topics of relevance for a future reader at LTH, such as research supervision, third-cycle studies (doctoral education), academic conduct, scholarly standards and assessment of PhD candidates. The aim of the course is thus to prepare a future reader for the functions of a research supervisor, researcher and faculty examiner/member of examining committees at LTH. The course includes components on the formal aspects of research supervision, the processes of research supervision, development of third-cycle studies, academic conduct, good scholarship, development of research teams and assessment at dissertations. Last day to register January 25 2017, course start February 3 2017.

#### Examination (3v)

Kursen syftar till att ge deltagarna en ökad förståelse för och kunskap om examinationens centrala betydelse för studenters lärande inom högre utbildning. Kursen bygger på relevant högskolepedagogisk forskning och den kompetens som deltagarna själva har utvecklat genom sina professionella erfarenheter av att examinera studenter inom olika ämnesområden. Kursen innehåller olika teoretiska teman kring examination, samt ett projekt som utgör huvuddelen av kursen. Under kursen diskuteras undervisning, lärande och examination relaterade till den egna praktiken och LTHs undervisnings- och examinationskultur, samt litteraturstudier, som syftar till att identifiera relevanta pedagogiska problemområden och koppla högskolepedagogisk teori till examinationspraxis. Sista ansökningsdag är 25 januari 2017 och kursen startar 3 februari 2017.

#### Communicating Science (3v)

Communicating Science is an elective course of the qualifying programme in teaching and learning in higher education and of third-cycle studies at LTH. The aim of the course is to prepare doctoral students and teaching staff at LTH for situations requiring communication of science. Apart from lectures, the course consists of practical and individual exercises followed by group discussions and analysis. The exercises in rhetoric take the form of role play and group discussions. The course includes components such as techniques of scientific presentation skills and feedback, voice and speech, poster presentations, rhetoric and the writing of popular science. This course has replaced the two former courses Kommunikationsteknik and Spoken Technical Communication and is given in English. Last day to register is February 24 2017 and the course starts March 20 2017.

## Kom ihåg

Ansökan till LTH:s pedagogiska akademi 2017 lämnas in senast den 31 januari 2017.

LTH inbjuder sina lärare att ansöka om att få sina pedagogiska meriter bedömda och bli antagna till LTHs Pedagogiska Akademi. Alla antagna lärare erhåller den pedagogiska kompetensgraden Excellent Teaching Practitioner (ETP) och en omedelbar löneökning. Dessutom erhåller de institutioner där dessa lärare verkar en ökad tilldelning. Ansökningar kan lämnas in när som helst under året. Det kommer endast att finnas en bedömningsomgång per år och ansökningar måste lämnas in senast den 31 januari för att bedömas under innevarande år, se http://www.lth.se/genombrottet/lths-pedagogiska-akademi/ för ytterligare information. Ansökningar lämnas in elektroniskt (i pdfformat) via epost till: Thomas.Olsson@genombrottet.lth.se



9:e Pedagogiska Inspirationskonferensen, 15 december 2016, LTH, Lund: www.lth.se/genombrottet/lths-pedagogiska-inspirationskonferens/

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