

Om licentiatexamen

Fysikum 2017-02-21

ockholm niversity

Kunskap och förståelse

- visa kunskap och förståelse inom forskningsområdet, inbegripet aktuell specialistkunskap inom en avgränsad del av detta samt fördjupad kunskap i vetenskaplig metodik i allmänhet och det specifika forskningsområdets metoder i synnerhet.

Knowledge and understanding

- demonstrate knowledge and understanding of the research field, including up-to-date specialised knowledge in a limited area of this field, demonstrate familiarity with in-depth research methodology in general and the methods of the specific field of research in particular.

Kunskap och förståelse

– visa brett kunnande inom och en systematisk förståelse av forskningsområdet samt djup och aktuell specialistkunskap inom en avgränsad del av forskningsområdet, och – visa förtrogenhet med vetenskaplig metodik i allmänhet och med det specifika forskningsområdets metoder i synnerhet.

Knowledge and understanding

- demonstrate broad knowledge and systematic understanding of the research field as well as advanced and up-to-date specialised knowledge in a limited area of this field, and demonstrate familiarity with research methodology in general and the methods of the specific field of research in particular.



Färdighet och förmåga

- visa förmåga att kritiskt, självständigt och kreativt och med vetenskaplig noggrannhet identifiera och formulera frågeställningar, att planera och med adekvata metoder genomföra ett begränsat forskningsarbete och andra kvalificerade uppgifter inom givna tidsramar och därigenom bidra till kunskapsutvecklingen samt att utvärdera detta arbete,

- visa förmåga att i såväl nationella som internationella sammanhang muntligt och skriftligt klart presentera och diskutera forskning och forskningsresultat i dialog med vetenskapssamhället och samhället i övrigt, och
- visa sådan färdighet som fordras för att självständigt delta i forskningsoch utvecklingsarbete och för att självständigt arbeta i annan kvalificerad verksamhet.

Färdighet och förmåga

- visa förmåga till vetenskaplig analys och syntes samt till självständig kritisk granskning och bedömning av nya och komplexa företeelser, frågeställningar och situationer,
- visa förmåga att kritiskt, självständigt, kreativt och med vetenskaplig noggrannhet identifiera och formulera frågeställningar samt att planera och med adekvata metoder bedriva forskning och andra kvalificerade uppgifter inom givna tidsramar och att granska och värdera sådant arbete,
- med en avhandling visa sin förmåga att genom egen forskning väsentligt bidra till kunskapsutvecklingen,
- visa förmåga att i såväl nationella som internationella sammanhang muntligt och skriftligt med auktoritet presentera och diskutera forskning och forskningsresultat i dialog med vetenskapssamhället och samhället i övrigt,
- visa förmåga att identifiera behov av ytterligare kunskap, och
- visa förutsättningar för att såväl inom forskning och utbildning som i andra kvalificerade professionella sammanhang bidra till samhällets utveckling och stödja andras lärande.

Sten Hellman

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Competence and skills

evaluate such work

demonstrate the ability to identify and formulate issues with scholarly precision critically, autonomously and creatively, and to plan and use appropriate methods to undertake a limited research project and other

 demonstrate the ability in both national and international contexts to present and discuss research and research findings clearly in speech and writing and in dialogue with the academic community and society in general

qualified tasks within predetermined time frames and to review and

- demonstrate the capacity necessary to participate in an independent way in research and development, and to independently work in some other qualified professional capacity.

Competence and skills

- demonstrate the capacity for scholarly analysis and synthesis as well as to review and assess new and complex phenomena, issues and situations autonomously and critically
- demonstrate the ability to identify and formulate issues with scholarly precision critically, autonomously and creatively, and to plan and use appropriate methods to undertake research and other qualified tasks within predetermined time frames and to review and evaluate such work
- demonstrate through a dissertation the ability to make a significant contribution to the formation of knowledge through his or her own research
- demonstrate the ability in both national and international contexts to present and discuss research and research findings authoritatively in speech and writing and in dialogue with the academic community and society in general
- demonstrate the ability to identify the need for further knowledge
- demonstrate the capacity to contribute to social development and support the learning of others both through research and education and in some other qualified professional capacity.



Värderingsförmåga och förhållningssätt

- visa förmåga att göra forskningsetiska bedömningar i sin egen forskning,
- visa insikt om vetenskapens möjligheter och begränsningar, dess roll i samhället och människors ansvar för hur den används, och
- visa förmåga att identifiera sitt behov av ytterligare kunskap och att ta ansvar för sin kunskapsutveckling.

Värderingsförmåga och förhållningssätt

- visa intellektuell självständighet och vetenskaplig redlighet samt förmåga att göra forskningsetiska bedömningar, och
- visa fördjupad insikt om vetenskapens möjligheter och begränsningar, dess roll i samhället och människors ansvar för hur den används.



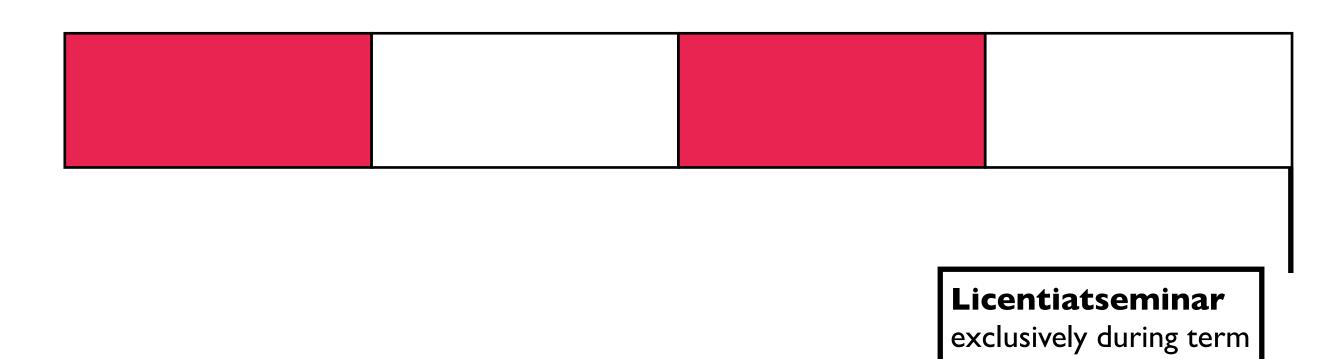
Judgement and approach

- demonstrate ability to make assessments of research ethics relevant for demonstrate intellectual autonomy and disciplinary rectitude as well as the the students own research.
- demonstrate insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used.
- demonstrate the ability to identify the personal need for further knowledge and to assume the responsibility for his/her personal development of knowledge.

Judgement and approach

- ability to make assessments of research ethics
- demonstrate specialised insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used.







Subject responsible signs-off on application.

Abstract uploaded to DiVa (spikning)

Spikblad and thesis submitted to Åsa

Spikblad and thesis sent to opponent and committee



Form requesting seminar sent to the subject responsible.

Draft of thesis is sent to subject responsible for text-control and check of formalities.

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Supervisor

Subject responsible signs-off on application.

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Supervisor

Student

Subject responsible signs-off on application.

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Student



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Student

Supervisor

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Licentiatseminar exclusively during term



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Supervisor
Student

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Student

Student



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Student

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Student
Student
Student



Licentiate seminar

A Licentiate degree (of total 120 ECTS credits with an academic thesis corresponding to 60 - 90 ECTS credits and the rest courses) may be a degree in its own right or a stage in the program towards a PhD. As a part of the 50% evaluation of the PhD education at Fysikum it is mandatory to fullfil the requirements of the Licentiate degree. The examination goals for the degree can be found here. For a Licentiate degree the students must write and present a Licentate thesis at a seminar, which is scrutinized by an opponent. The grading is done by a comittee. The Licentiate as well as the PhD thesis can be based either on a unified theme or as a collection of separate articles with a summary. In the latter case the thesis consists of a summary and referenced articles published in scientific magazines. Read more about theses in the doctoral handbooks.

Apart from those copies that the student keeps for distributions among colleagues and friends, the supervisor, the opponent and members of the committee should have a copy each. Fysikum's administration (Åsa Storm) should also have a number of copies. Moreover, there should be 10 copies of the thesis available at the Licentiate seminar. The Licentiate seminar must be posted at least 3 weeks before the seminar. At the same time the printed duty copies of the thesis should be distributed. More about routines for the licentiate seminar here.

Stockholm University

At least 4 weeks before the seminar

At least four weeks before the seminar an application for the licentiate examination along with one (preliminary) copy of the thesis is handed in to Åsa Storm by the *supervisor*. In the application the supervisor proposes an expert examiner, who also acts as opponent at the seminar, and an examination board. The examination board consists of the opponent, one teacher (not supervisor or assistant supervisor) and the subject responsible (at present: Sten Hellman) or the director of graduate studies (at present: Per-Erik Tegnér). The expert should have a doctoral degree and must not have published together with the respondent or supervisor (within the thesis specific area) over the past five years. At least one of the members of the examination board should have docent competence. In the examination board both male and female persons should be included. Before being proposed, the opponent and other members of the examination board must have been informed by the supervisor and agreed. The *supervisor* is responsible for booking the seminar room.

Åsa informs about the prescribed number of copies of the thesis to be submitted in connection with the announcement of the seminar. One copy of the thesis in pdf-format should be sent to the subject responsible.

The application is then approved by the subject responsible.

The seminar can take place in the time period August 15th to June 15th only. The period June 16th - August 14th cannot be part of the three week announcement period (see below).

N.B: All licentiate theses are checked with the tool TurnItIn to verify that there are not parts that are copied

from other reports.



At least three weeks before the seminar

At least three weeks before the seminar the announcement sheet ("spikblad") and the prescribed number of copies of the thesis is handed in to Åsa Storm by the supervisor/respondent. The announcement sheet should be sent electronically, as well, to Åsa. A template for the announcement sheet is available on the internal home page, see below. Åsa announces the seminar on our website and on the digital billboard at the entrance. Åsa distributes the thesis to other departments of the mathematics-physics section and to departments at other universities. The supervisor/respondent is responsible for that the opponent and the Examination Board are called to the seminar and that they receive a printed copy each of the thesis.

The <u>abstract/summary of the thesis shall be put in to the DIVA system</u> at least three weeks before the seminar. See also "after the seminar" below.



The seminar

The standard procedure at the licentiate seminar is as follows:

The examination board consisting of three persons is present, i.e. the expert (opponent), the subject responsible (at present: Sten Hellman) or the director of graduate studies (at present: Per-Erik Tegnér), and a third member (normally a teacher from the department). The *supervisor* is acting chairperson at the seminar. The seminar is public.

The *respondent* presents her/his thesis, 30 - 40 minutes. Thereafter the *opponent* examines the thesis through questions and discussion with the respondent, 30 - 40 minutes. This is followed by questions from the examination board and from other participants at the seminar.

Grading (pass or non-pass) is done directly after the seminar. The supervisor may attend the examination board meeting but not at the decision. The decision protocol is brought to the meeting by the subject responsible or the director of graduate studies. The signed protocol is delivered by the *supervisor* to the student office at the department for registration in Ladok.



After the seminar

The *respondent* is responsible for registering and uploading the approved thesis in the Stockholm University publication database DiVA, https://su.diva-portal.org/dream/login.jsf under "licentiate theses". This is not mandatory.

When the seminar and the required courses are registered in Ladok the respondent may apply for the Licentiate Degree. This is done at Minastudier.su.se. Observe that the date of the degree will be identical to the application date (and e.g. not to the date of the seminar).



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The Faculty of Science:

"Vid ett licentiatseminarium ska det utses en opponent och en examinator eller en betygsnämnd"

At the licentiate seminar there should be appointed one opponent and one examiner, or an examination committee

http://www.science.su.se/polopoly_fs/1.84933.1334576277!/menu/standard/file/Examination_av_licentiatuppsats.pdf