

# LITERATURE THESIS INFORMATION FOR SUPERVISORS & EXAMINERS

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#### LITERATURE THESIS FORENSIC SCIENCE

The literature thesis is a mandatory part of the MSc in Forensic Science and is scheduled for 5 European Credits (equals a workload of 140 hours). The student will obtain in-depth knowledge on a specific forensic topic by studying and analysing state-of-the-art scientific literature. Writing the literature thesis is an assignment in which the student has to work independently, choose a topic, make one's own time planning, formulate a research question, find and select the relevant scientific literature and write a critical review thereof. The student is also expected to provide one's own opinion on the topic, to point out possible shortcomings of the existing knowledge and to suggest how new research could provide new insights in the future. The results of the thesis have to be presented during a colloquium (presentation) and mini-symposium (pitch).

The research skills described above are important to master for any scientist. A very good report displays a high level of understanding of the forensic context, in other words it displays a "forensic awareness". A forensic literature thesis answers questions such as "What does the forensic community need?" and "How could this innovation be used in forensic practice?".

#### LEARNING OBJECTIVES

At the end of the course the student is able to:

- 1. formulate a forensic scientific research question to direct and focus the literature review.
- 2. find and select relevant literature from domain and forensic scientific journals that relate to a forensic science topic.
- 3. critically read, understand, analyse, evaluate and review scientific literature related to a forensic science topic.
- 4. develop an own perspective and opinion in relation to a forensic science topic after studying relevant scientific literature.
- 5. write a consistent, well-structured scientific thesis in academic English on a forensic science topic on the basis of available scientific literature.
- 6. present the results of the forensic literature thesis orally to a scientific audience.
- 7. summarise the results of the forensic literature thesis in the form of an oral pitch presentation to a broad audience.

#### CONTACT INFORMATION MASTER FORENSIC SCIENCE

All logistic and planning issues are dealt with by the UvA and can be reported to the coordinator and assistant coordinator.

- Coordinator Literature Thesis: prof. Arian van Asten (A.C.vanAsten@uva.nl)
- Assistant coordinator Literature Thesis: dr. Yorike Hartman (Y.Hartman@uva.nl)

#### ROLE OF THE SUPERVISOR

The supervisor is the first point of contact for questions regarding the Literature Thesis. The supervisor is a scientist (PhD candidate or academic staff member) or a forensic expert at the Faculty, institute or company where the literature thesis takes place.

To act as a supervisor should roughly in total take 10 hours. It is expected that the supervisor:

- helps the student to start the thesis during a start-up meeting (1,5 hours),
- has 1 to max. 2 discussion meetings, answers questions and provide directions when the student gets stuck (2,5 hours),
- reads the concept thesis, provides feedback to the student and approves the final version (but is **not** actively involved in re-writing or editing the thesis) (2 hours),
- advices the examiner in the assessment of the report and colloquium, this includes reading the report and attending the final presentation of the thesis, usually in December (4 hours).

#### **ROLE OF THE EXAMINER**

The examiner is a permanent member of staff at the Faculty of Science, or has an appointment as a professor with a special chair or as full professor, at the Faculty of Science, AUMC or NFI. The examiner has a PhD and has a relevant background in forensic science. CLHC coordinators are often examiners. The MFS Examinations Board can make an exception if these criteria are not met, but the examiner in any case needs to have a PhD and a relevant forensic background.

The examiner is appointed by the MFS Examinations Board and in this capacity has the responsibility for the grading process, as well as the mandate to register the different components and the final grade. The examiner is responsible for the assessment of the academic level of the literature thesis.

To be an examiner typically requires 4 hours, this includes reading the final report, being present at the colloquium and providing grades and feedback. The supervisor advises the examiner in the grading. The examiner is <u>not</u> involved in the supervision of the Literature Thesis.

#### LITERATURE THESIS REPORT

As a guideline, a Literature Thesis of 5 EC should contain approximately 8.000 words (about 10-12 pages long), excluding appendices and the list of references, and should be based on 25-40 scientific articles and book chapters. Considering the time available and the level of the students, the topic should be well defined and should not be too generic or vague.

# **COLLOQUIUM**

During the colloquium, the student should present a 15 minutes overview of the thesis, followed by approximately 5 minutes of discussion. The audience consists of Forensic Science students, the supervisor and examiner, plus interested staff.

#### Date and location

The date for the colloquium should be arranged with the supervisor and the examiner, in such a way that both can attend. In exceptional cases (e.g. the supervisor lives abroad or has sudden obligations), the colloquium can be given in absence of the supervisor. In that case, the supervisor and examiner have to determine the grade of the report beforehand and only the examiner will assess the colloquium. The colloquium cannot continue if the examiner can't be present, because the examiner has the official authority to establish and register the grades. In case the examiner cannot be present the colloquium has to be rescheduled.

The colloquium can be held online or can be organised as a hybrid session (partly on-site, partly on-line) at the UvA or the host institute.

## **GRADING**

The grade for the report and the colloquium is determined by the supervisor and examiner. The process is as follows:

- First, prior to the colloquium the thesis must be checked for plagiarism in DataNose by the examiner (Access to the plagiarism report is available as a link next to the uploaded report). The plagiarism report should be checked in detail by the examiner. The literature review must meet scientific integrity standards with respect to referencing to the work of others. Irrespective of the score, the examiner

checks if the student has worked according to the academic standards. If after correction of the score (i.e. for short sentences, references, and quotes):

- o a relatively small number of reported matches remains, this can be discussed directly by the examiner with the student as part of the feedback.
- o a significant number of reported matches remain, the examiner informs the student and supervisor and an improved version of the thesis needs to be submitted by the student.
- o The examiner contacts the Research Project coordinator immediately in case of significant scores and when there is a suspicion of deliberate plagiarism and potential fraud. The coordinator will inform the Examinations Board that will assess the case and decide on required measures.
- Also, prior to the colloquium both the supervisor and examiner individually fill in the assessment form for the report that can be found on the <u>CLHC website</u> in the form of an Excel file with which the grade can be calculated automatically. There is a grading form available for the colloquium assessment as well. **Please read these forms carefully to learn what we expect of the student.**
- The supervisor and examiner directly after the session or on agreed later point in time provide detailed feedback to the student, explaining the grade and also providing tops and tips so the student can improve his/her knowledge and skills. The supervisor and examiner also ask the student to provide feedback on the process and the supervision. The final assessment of the Literature Thesis report and Colloquium will be filled in by the Examiner via DataNose using a digital assessment form.
- In the grading process the supervisor has an advisory role. The examiner is appointed by the MFS Examinations Board and in this capacity has the responsibility for the grading process, as well as the mandate to register the different components and the final grade online. The examiner is responsible for the assessment of the academic level of the literature thesis.

**Please note:** If the deadline for writing the thesis is exceeded by more than 3 months without prior notice by the student to the programme management, the thesis will be assessed as insufficient. If this happens please contact the coordinators of the course (see contact information on page 1).

#### WHAT TO DO IF THE REPORT IS INSUFFICIENT?

In order for the student to pass the course, all components and the final grade have to be sufficient, i.e. at least a five and a half. It can occur that the work the student delivers is not of sufficient academic quality. If it turns out that the final report is still not sufficient 2 days prior to the colloquium, the following procedure should be followed:

- the colloquium will go ahead and will be graded.
- the student will be informed that the report is not sufficient and will get feedback on how to improve the report.
- student, supervisor and examiner decide on a new deadline to hand in the report (max. extension allowed is one month after the original colloquium date) and inform the coordinators of the course (see contact information on page 1).
- NB: The final version will be judged taking into account that the first attempt was not sufficient. The new report cannot be graded higher than a 7.0. A 7.0 is only appropriate in the event that the second attempt has remarkably improved the report.

#### WHAT TO DO IF THE COLLOQUIUM IS INSUFFICIENT?

In order for the student to pass the course, all components and the final grade have to be sufficient, i.e. at least a five and a half. It can occur that the work the student delivers is not of sufficient academic quality. Although very rare, if it turns out that the colloquium is not sufficient the following procedure should be followed:

- the report will be graded.
- the student will be informed that the colloquium is not sufficient and will get feedback on how to improve their presentation skills.
- the student, supervisor and examiner decide on a new date for the colloquium (max. extension allowed is one month after the original colloquium date) and inform the coordinator of the Literature Thesis Course (see contact information page 1).
- NB: The final assessment will be judged taking into account that the first attempt was not sufficient. The new grade cannot be higher than a 7.0. A 7.0 is only appropriate in the event that the second attempt has remarkably improved.

# **OVERVIEW OUTLINE AND RESPONSIBILITIES**

#### In general:

- The student is responsible for making a planning independently and finishing on time.
- The student is expected to take the initiative with regards to planning meetings and informing the supervisor and examiner on time.

# Before starting the Literature Thesis:

# Student is responsible for:

- finding a topic either via the CLHC topic list or by providing his/her own subject;
- following the online approval procedure to get the topic approved.

# Start-up meeting:

# Student is responsible for:

- organising a start-up meeting with the supervisor and having questions ready.

#### Supervisor is responsible for:

- helping the student to start the thesis by giving advice on:
  - the outline, planning, and providing a few first references,
  - how to approach the literature search (the right key words will help the student to find all relevant literature) and how to delineate the topic (this will improve the quality and value of the thesis).

# During writing:

- student and supervisor can arrange 1 or 2 discussion meetings, other contact is usually via e-mail.

#### Student is responsible for:

- writing the literature thesis independently,
- contacting the supervisor when he/she gets stuck (e.g. when there is too much or too few literature),
- scheduling discussion meetings, the feedback moment (see next step) and the date, time and location for the colloquium with the supervisor and examiner,
- making sure supervisor and examiner are aware of deadlines (e.g. when they can expect to receive the final version and should make time to read the thesis).

#### Supervisor is responsible for:

- answering questions and providing directions when needed,
- providing guidance when a student gets stuck because there is too much or too little literature found. (e.g. if much literature on the topic exists, the supervisor can limit it by setting a time frame for the review (e.g. the last 5 or 10 years) or selecting a specific forensic evidence type or application.),
- <u>not</u> being actively involved in re-writing or editing the thesis, the quality of the thesis is expressed in the grade.

#### At the latest 5 working days prior to the colloquium:

# Student is responsible for:

- handing in a concept version on time,

# Supervisor is responsible for:

- reading the concept thesis and providing feedback.

# At the latest 2 working days prior to the colloquium:

#### The student is responsible for:

- sending the final version of the thesis (via e-mail) to the supervisor and examiner and confirming that the supervisor and examiner have received the thesis.
- uploading an electronic copy of the final thesis on DataNose.

#### Examiner is responsible for:

- checking the report for plagiarism after it has been uploaded (access to the plagiarism report is available as a link next to the uploaded report). The literature review must meet scientific integrity standards with respect to referencing to the work of others. Irrespective of the score, the examiner checks if the student has worked according to the academic standards. If after correction of the score (i.e. for short sentences, references, and quotes):
  - o a relatively small number of reported matches remains, this can be discussed directly by the examiner with the student as part of the feedback.
  - o a significant number of reported matches remain, the examiner informs the student and supervisor and an improved version of the thesis needs to be submitted by the student.
  - O The examiner contacts the Research Project coordinator immediately in case of significant scores and when there is a suspicion of deliberate plagiarism and potential fraud. The coordinator will inform the Examinations Board that will assess the case and decide on required measures.

# At the colloquium:

### Supervisor and examiner are responsible for::

- discussing the grades of the thesis and the colloquium by using the MFS LT grading forms provided online, which are used to obtain an objective score and provide valuable feedback, the supervisor has an advisory role in this.

# Examiner is responsible for:

- filling in the online assessment forms on DataNose to register the grade (the examiner will be notified through an automatic e-mail about the online procedure). The examiner is appointed by the MFS Examinations Board and in this capacity has the responsibility for the grading process, as well as the mandate to register the different components and the final grade online. The examiner is responsible for the assessment of the academic level of the literature thesis.

#### CALCULATION OF THE FINAL GRADE

All components will be graded on a scale from 1 to 10, with a maximum of one decimal after the point. These grades are used to calculate the final grade. In order to pass the course, all components and the final grade have to be sufficient, i.e. at least a 5.5. When a student has not fulfilled this requirement, the examiner will register the mark 'did not fulfill all requirements' (NAV) whether or not the averaged grade is sufficient.

The components will be weighted as follows:

- 1. Literature thesis report (65%)
- 2. Presentation colloquium (20%)
- 3. Presentation mini-symposium (15%; will be assessed by the coordinators of the course)

# RELATION between LEARNING OUTCOMES, ASSESSMENT COMPONENTS and EXIT QUALIFICATIONS of the MASTER

The table of specification (in Dutch toetsmatrijs) displays the relation between the learning outcomes of the course (see page 1), the assessment components of the course (1 = report, 2 = colloquium, and 3 = mini-symposium), and the exit qualifications (EQ) of the Master's Forensic Science (see below).

Table of specification

Learning Outcome	Components	EQ 1	EQ 2	EQ 3	EQ 4	EQ 5	EQ 6	EQ 7	EQ 8	EQ 9	EQ 10
1	1, 2								X		
2	1								X		
3	1, 2								X		
4	1, 2								X		
5	1									X	
6	2						ı			X	
7	3									X	

# Exit qualifications of the master

At the end of the study programme, graduates will be able to:

#### Knowledge and understanding

- 1. explain the forensic process in detail, including the actors and their roles, and understand the judicial context.
- 2. describe the most common traces and the corresponding forensic expert areas, the scientific principles of the techniques used in those areas and the appropriate methods for the analysis and interpretation of the data generated.

# Applying Knowledge and understanding

- 3. apply their forensic knowledge to a basic forensic case including the definition of appropriate hypotheses and the use of the Bayesian paradigm for the interpretation of evidence.
- 4. independently identify relevant forensic issues, to formulate appropriate research questions, to develop an experimental set-up and to design a project plan and implement that plan.
- 5. work professionally with others in multidisciplinary and multicultural teams in unfamiliar environments related to the field of forensic science.

# Making judgements

- 6. review situations critically and in a systematic way and to draw inferences on the basis of incomplete information while being aware of the limitations of these inferences.
- 7. assess and interpret the role of forensic science in society and determine the standards that are required for forensic investigations and reflect on associated societal challenges and issues.
- 8. recognise the forensic relevance and potential of state-of-the-art scientific developments in their science discipline and to integrate these developments to make innovative forensic contributions

## Communication

9. communicate findings and conclusions with solid argumentation both orally and through written reports to expert and non-expert audiences in a legal, scientific and broader societal context

# Learning skills

10. independently acquire knowledge, skills and competencies in new situations, to reflect on their contribution and to plan their future professional development accordingly.