

Requirements for Student Academic Work under the supervision of Prof. Dr.-Ing. Nicolaj Stache

(Version: 2026-05-14)

Prerequisites for Supervision by Prof. Stache:

- Regardless of the regulations in the academic program and examination regulations (SPO), supervision will only be provided if the students give a final presentation. The presentation typically takes place within 4 weeks after submission of the thesis/project at Heilbronn University of Applied Sciences. Alternatively, the presentation may be given online in coordination with Prof. Stache (e.g., via MS-Teams). In that case, it is required that the camera be turned on. Prof. Stache's staff team will attend the presentation and may also ask questions.
 - For bachelor's and master's theses as well as HFSW projects, the presentation should last 20–30 minutes and present the task, the approach taken (why this approach was chosen), and the results of the work. A summary and outlook at the end of the presentation are desirable.
 - For term papers and HHN master's projects, an A0-format poster must be prepared (it can be printed free of charge at the university; contact person: Mr. Kolb). Please use the poster template in ILIAS at: https://ilias.hs-heilbronn.de/goto.php?target=crs_28948&client_id=iliashhn (Magazin > Fakultät für Mechanik und Elektronik > Automotive Systems Engineering (Bachelor) SPO 3 > Hauptstudium H7 > Seminararbeit (304171) > H7.1 Seminararbeit / Projekt). No separate PowerPoint presentation is required. It is sufficient to project the poster as a PDF and zoom in on the relevant sections. Before printing the poster, please obtain feedback from Prof. Stache or a staff member.
 - Important tip: Practice the talk / poster presentation aloud several times at home. Record yourself on your phone while doing so. Ideally, allow several days for this phase so that you can still make improvements to the presentation if needed.
- If you would like to write a thesis/project in cooperation with a company, please clarify at an early stage whether a confidentiality agreement is required or not. Important: As a rule, industrial theses/projects with an individual confidentiality agreement are not supervised. A restriction notice with an expiry period of up to 5 years is acceptable. This does not affect the requirement that the colloquium take place at HHN or via WebEx in the manner described above.
- **Time Limit for Term Papers:** Term papers / seminar papers are to be completed within a short timeframe (usually within one semester). Prof. Stache must be informed early of any deviations from the agreed schedule. The maximum period of supervision for a term paper is 2 semesters or 1 year from the date this document is signed. This means that a grade will only be issued for the term paper / seminar paper if all required work has been completed within this period.

Registration of the Thesis/Project:

- Please submit the form and the required supporting documents to Prof. Stache (email submission is welcome).
- For work carried out in industry: the industry supervisor = second examiner; otherwise, it will be coordinated which colleague can take on the role of second supervisor. You are welcome to propose someone.
- Important for the second examiner
 - Subject-matter expertise / disciplinary focus must match the topic.
 - Must hold at least the academic degree being pursued.
 - Should have sufficient time available for supervision.

Content Requirements

The following content-related points should be covered in the thesis/project (this applies primarily to bachelor's theses, master's theses, and master's projects; for term papers, it should be understood as general guidance):

- Introduction: Should introduce the topic, but also clearly state the aim and task of the thesis/project. What question is the thesis/project intended to answer (= what is the "research question")?
- State of the Art: How has the task been addressed so far? What were the advantages and disadvantages of these approaches? Why is a new approach needed?
At the latest by this point, a comprehensive literature review is expected—what exists on the topic in scientific papers? The university has access to IEEE Xplore and other portals. In addition, there is an excellent library with up-to-date electronic resources.
- Description of Your Own Approach: Please always describe things in a "top-down" manner, i.e., first the forest, then the tree, then the leaf. Emphasize which measures are intended to solve the technical problem better than the state of the art.
- Evaluation, Validation: Meaningful description of the experiments conducted (also top-down, i.e., first the test concept, then the individual experiments), comparison of your own approach with the results of existing approaches, and explanation of the results.
- Summary and Outlook:
What was done? Summarize how the "research question" from the introduction was answered. What could be done differently or better in the future? Include a critical reflection on the work itself.
- Appendix: optional; may contain supplementary work results (including source code, validation results, figures, specification tables, etc.) that are not required for immediate understanding. Any project plan that may be required should also appear in the appendix.

Please note:

- If a project plan is required due to the SPO, it should be attached in the appendix of the thesis/project. A meaningful breakdown of work packages and a presentation in the form of a Gantt chart is sufficient as a project plan. The assessment includes not only the project plan itself, but also the methodological approach as such.
- For work carried out in industry: descriptions of the company history, departmental structure, etc. are not desired.
- The thesis/project must include the student's own development work (programming, hardware development, or similar). Purely conceptual work is not suitable for supervision here.

- Critically review your topic by going through the listed content requirements and considering whether you can write something for each point. The more advanced the academic degree you are pursuing, the more strictly compliance with these requirements will be assessed.
- Evaluation / validation is often underestimated, but the effort invested here contributes greatly to the knowledge gained and is weighted accordingly in the grade. Also make sure that, where possible, you produce quantitative results and draw comparisons, for example with the state of the art. Show the boundary conditions—that is, when does your method still work, and when does it no longer work? Simply showing that the work product functions is not evaluation. Evaluation is listed above as a separate chapter for a reason and should also be given appropriate scope. Ideally, make a plan for what you will evaluate and how—you are welcome to submit the plan in advance for review. Additional tip: Create a schedule at the beginning of the thesis/project and include buffer times to ensure that you have enough time for evaluation in any case.

Formal Requirements:

- Guideline for the length of the thesis/project (for term papers, bachelor's theses, or master's theses): approx. 10 A4 pages of main content per working month per person (excluding appendix and lists), upper limit 15 A4 pages of main content per working month per person (bachelor's thesis: 4 months, master's thesis: 6 months).
Length of master's projects: approx. 50–100 content pages.
- Literature must be cited and listed in a references section.
Sources that are not publicly available must be identified as such in the references section.
- A table of contents is required.
- Font for body text: serif font, e.g., Times New Roman or Computer Modern, 12 pt.
- Font for headings: no specific requirement (a sans-serif font such as Arial or Calibri is also welcome).
- Figures and tables require numbering and a short caption (for figures below, for tables either above or below).
- Graphics should, where possible, be created as vector graphics. If that is not possible, they should be included in high resolution and in a lossless format (e.g., PNG). Photos may be included as JPG files.
- Source code should be included in `Courier New`, 10 pt, with appropriate syntax highlighting.
- Please submit the thesis/project including attachments electronically only (no printed copy). Please note that the examination office may have other requirements that must also be met (e.g., timely submission of a printed, softbound copy).

Stylistic Requirements:

- Use neutral, predominantly passive descriptions of factual matters.
- Mention the sequence of work only when it is relevant; otherwise, write in a results-oriented manner.
- Academic style does not allow emotions or subjective evaluations—for example, expressions such as "thankfully," "unfortunately," or similar wording.
- Filler words should be avoided—for example: "of course," "so to speak," etc.

Recommendations for Collaboration

External and Internal Work:

- Please get in touch / send an outline of your thesis/project as soon as it is ready.
- Please get in touch when you have reached significant milestones or when you need subject-specific advice despite your own research and guidance from the industry supervisor.
- Please contact Prof. Stache early if it becomes apparent that a publication could result from the work. Such publication efforts are supported, and participation as supervisor is desired. Even if the publication is only to arise after your processing period, good academic practice requires involving the supervisor.
- Up to 10 pages of the thesis can be proofread in advance and feedback can be provided. These 10 pages should already be as close to perfect as possible by your own standards. Do not send anything that you have not already proofread yourself or run through spell check. Even preliminary versions are your calling card. Avoidable errors create a poor impression.
- Submission of the thesis/project: You are responsible for meeting the submission deadline and related requirements.
- If you would like to get in touch, please ideally write an email. Since many theses/projects are supervised, please always include your subject area, the type of work (e.g., bachelor's thesis, master's thesis, etc.), and, if applicable, your company in every email. If you need an appointment, please write what the meeting is intended to address. In some cases, matters can be clarified by email, or a phone/MS-Teams appointment may be sufficient instead of an in-person meeting.
- Whenever you have an online meeting, e.g., via MS-Teams, please make sure your camera is on.

Internal Work:

- As with external work, plus closer supervision by Prof. Stache and/or staff members.

Contact Information / Acknowledgment

Consent is hereby given for the following information regarding supervision of the thesis/project by Prof. Stache and his staff to be used and stored (delete as applicable):

Name(s) of student(s):	Student ID number:	Email address:	Mobile phone number:*

*) Providing a mobile phone number is voluntary, but helpful if an appointment has to be rescheduled at short notice or similar. If you are using a university computer (including via remote login), providing a mobile phone number is required.

Degree program: _____

University: ☐ HHN, ☐ other: _____

Name of supervising
HHN staff member
/ external supervisor: _____

Type of work: ☐ Term paper, ☐ Bachelor's thesis, ☐ Master's thesis,
☐ Master's project, ☐ Other work: _____

The work is carried out: ☐ internally at the university, ☐ externally at: _____

Topic of the thesis/project or broad subject area:

By signing below, you confirm your agreement with the above requirements and arrangements.

Place, date, signature of the student / signatures of the students

Please send the completed and signed document, scanned as a PDF file, to: Nicolaj.Stache@hs-heilbronn.de Thank you!