

ASSESSMENT PROTOCOL EXTERNAL INTERNSHIP MSC STNF (version September 2024)

This protocol replaces the protocol External Internship MSc STNF 2023-2024 for students starting their EI on/after September 1, 2024.

The assessment of an External Internship Science & Technology of Nuclear Fusion (STNF) comprises the following aspects:

- (1) **Project duration:** regulations regarding the duration and finalization of the internship,
- (2) **Assessment committee, report & presentation:** committee composition, report/presentation details,
- (3) **Assessment procedure & rubrics, assessment form:** determination and communication of the grades,
- (4) **Double diploma protocol:** differences in assessment rules regarding double (or more) diploma students.

1. Project duration. On the External Internship registration form, the student, after discussion with the 1st TU/e examiner (also responsible STNF supervisor) fills in the agreed end date, based on 420 hours (15EC), and the extended end date, that is the agreed end date + allowed extra time, based on adding 160 hours (equivalent to 4 full-time working weeks). For both dates (public) holidays should be considered. If by the agreed end date including allowed extra time the pass criteria are not satisfied (see 3. *Assessment procedure & rubrics*) or the report and/or presentation are not delivered, the student receives the final grade “Not met requirements” (NMR) – in Dutch: “Niet voldaan” (NVD). This grade will be communicated to CSA by the 1st TU/e examiner and will be administered in Osiris. The student has the opportunity for a retake, for a limited time of 160 hours (equivalent to 4 full-time working weeks). If by the end date of the retake the pass criteria are still not fulfilled or the report and/or presentation are not delivered, the student fails the External Internship (NMR). In general, a new project should be started. If special circumstances play a role, a customized route should be followed. See the [study guide](#) for more information.

2. Assessment committee, report & presentation. The External Internship is assessed by the 1st TU/e examiner in consultation with the external supervisor. The external supervisor is the supervisor from the company, research institute or university at which the student carried out the External Internship. The 1st TU/e examiner must have informed the external supervisor about the assessment procedures and rubrics before the start of the internship. The presentation is also assessed by the 2nd TU/e examiner, who must be at least an assistant professor. The student sends the final report at least 5 working days before the presentation to the 1st TU/e examiner and external supervisor. The student delivers a presentation with a strict time limit of 12 minutes, followed by a discussion of typically 15-20 minutes where at least both the 1st TU/e examiner and 2nd TU/e examiner are present.

3. Assessment procedure & rubrics. The assessment has 3 components, (A) Report (1/3), (B) Presentation (1/3), (C) Implementation of the work itself (1/3). Before the presentation takes place, the grades for the Report (A) and for the Implementation of the work itself (C) are determined by the 1st TU/e examiner, in consultation with the external supervisor. The advice of the external supervisor on component (A) and (C) should be based on the criteria in the rubrics in the appendix. The 1st TU/e examiner and 2nd TU/e examiner both grade the Presentation (B). After the presentation, the 1st TU/e examiner and 2nd TU/e examiner discuss and determine the grade. The 1st TU/e examiner explains and motivates the grades to the student, if possible, immediately after the presentation. The grades for the 3 components are decided on a scale of 0 to 10, in 1 decimal (or less). The final grade is the weighted average, rounded to the nearest 1/2 grade. When rounding is ambiguous, the 1st TU/e examiner decides. The student passes when the final grade of the External Internship is ≥ 6.0 , and all 3 components are at least graded with a 6.0.

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Assessment form. The grades of the 3 components and final grade should be registered on the assessment form. The 1st TU/e examiner includes an elaborate written motivation per component based on the discussions with the 2nd TU/e examiner and external supervisor. In case the final grade is 6.0 or 10.0, a separate motivation should be given. The 1st TU/e examiner sends the report and the completed assessment form including a motivation to the student, 2nd TU/e examiner, external supervisor, and CSA no later than 5 working days after the presentation.

The grades will be processed by CSA in Osiris. If the student does not meet the requirements for passing (see above), the student fails the External Internship and the same procedure as described before (sending completed assessment form to CSA, student and 2nd examiner, grades in Osiris) applies. The student will enter a retake procedure (see above).

4. Double diploma protocol. If both degree programs require an internship there are three possibilities: to do (1) a single internship from either one of the programs, (2) two separate internships or (3) a combined internship (specially designed, with a study load according to the PERs). In all three cases, the assessment completely follows the assessment protocol(s) of the corresponding degree program(s). Always check the other degree program's regulations as well. For more information, see [education guide](#), [NF PER](#) Appendix 5 and 6 or contact the programs' academic advisors.

ASSESSMENT FORM EXTERNAL INTERNSHIP MSC STNF (version September 2024)

For students starting their EI after September 1, 2024.

1. Surname student + initials:
2. Student ID number:
3. Date of assessment (presentation date):
4. Start date External Internship:
5. Expected end date (as indicated on the registration form):
6. Expected end date including allowed extra time:
7. Course code and corresponding study load:
8. Title report:
9. Responsible STNF supervisor, also 1st TU/e examiner, cap. group:
10. External supervisor, institution:
11. Second TU/e examiner, cap. group:
12. Grades (components in 1 decimal, final grade 1/2 integer):

Report (1/3)	Presentation (1/3)	Implementation (1/3)	FINAL GRADE*

* If one or more of the 3 components (Report, Presentation, Implementation) are graded <6.0, the final grade will be "NMR".

13. Additional requirements:

Motivation 3 components included on separate sheets (approximately 5 sentences / component); optional additional motivation for final grade (compulsory when final grade is 6.0 or 10.0).

All components ≥ 6.0.

Presentation is assessed by 2nd TU/e examiner.

Fraud and plagiarism check on report has been conducted (1st TU/e examiner is responsible) via [Ouriginal](#) or manually in case of confidential report.

Confidentiality (see [study guide Internship](#) for more information)

Report and completed assessment form + motivation (pdf) sent by 1st TU/e examiner to CSA, student, 2nd TU/e examiner and external supervisor no later than 5 working days after the presentation.

Signature of the 1st TU/e examiner

Date of Signature

Signature of the 2nd TU/e examiner

Date of Signature

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To be filled in by the 1st TU/e examiner. Feedback of the 2nd TU/e examiner on the component “Presentation” is incorporated. Motivation on the 3 components included (approximately 5 sentences / component). Additional motivation for final grade is compulsory when final grade is 6.0 or 10.0.

Feedback on Report (1/3)

Feedback on Presentation (1/3)

Feedback on Implementation of the work itself (1/3)

Additional motivation (compulsory for final grade 6.0 or 10.0)

APPENDIX 1. RUBRICS EXTERNAL INTERNSHIP MSC STNF*

		Items considered	6 (sufficient)	10 (excellent)
A. Report	Reporting Quality	<p>* Information in report: what is done, why is it done, how is it done. What is the result?</p> <p>* Structure of the report.</p> <p>* Completeness of report: does it contain the following parts: Abstract, Introduction, theory (when applicable, method/experiment, results, interpretation, summary and discussion, conclusion.</p> <p>* Use of Figures.</p> <p>* Conciseness.</p>	<p>* The report should at least have a motivation, research question (or design goal) describes the method, give results and ends with a conclusion.</p> <p>* The basic structure has as minimum component the items listed below.</p> <ul style="list-style-type: none"> o Introduction: Background, Motivation, statement of the problem. o Summary of theory or background knowledge used in the rest of the report. o Description of Method/Experiment. o Results. o Summary, Discussion, Conclusion. <p>* Use of figures: contain the main results/information and have caption.</p> <p>* Conciseness: all information that is relevant is present.</p>	<p>* The report tells the reader exactly what was done, why it was done, how it was done, and what the result was.</p> <p>* Overall structure of the report is adequate and logical.</p> <ul style="list-style-type: none"> o Abstract: informative and concise on aim and results o Introduction: Background, Motivation, statement of the problem, breakdown of the problem, clear description of the approach. Adequate review of relevant literature. o Theory (when applicable): describing existing knowledge and building further on that. o Method/Experiment: clear description for experiments or methods, including the motivation of what is to be learned from each experiment. o Results: clear presentation of results. o Interpretation: description and discussion of what can be learned from the results. o Summary and Discussion (if applicable: application potential?). o Conclusion: relate back to the research question/problem. <p>* Use of figures – adequate, to the point, well chosen.</p> <p>* Conciseness: not too much, not too little, only relevant information.</p>

* ≤ 5 = fail, 6 = sufficient, 7 = satisfactory, 8 = good, 9 = very good, 10 = excellent

		Items considered	6 (sufficient)	10 (excellent)
B. Presentation		<ul style="list-style-type: none"> * Clarity and structure. * Performance, delivery of the presentation. * Scientific argumentation. * Adequate introduction. * Balance between introduction, exposition of the work itself, conclusions, and discussion/reflection. * Selection of the results. * Handling of the questions in the discussion. * Timing of the presentation. 	<ul style="list-style-type: none"> * Logical structure: problem definition, method, results, conclusion. * Attention of the audience is kept for the main part of the talk; language & voice are sufficient for understanding. * No inconsistencies in argumentation. * In introduction motivation and problem definition is addressed. * Introduction, results, conclusion, and discussion are all addressed. * Present results relevant for problem. * Student is able to answer question directly related to his own work, on how he has done it. * Within 20 % of the allocated time. 	<ul style="list-style-type: none"> * Overall clarity, clear story line, logical structure. * Keeps full attention of the audience, good use of language and strong performance. * Convincing scientific argumentation, leading to conclusions that are supported by the evidence presented. * Adequate introduction, i.e., not too short but efficiently getting to the point. * Good balance between introduction, exposition of the work itself, conclusions, and discussion/reflection. * Good selection of the essential results that underpin the conclusions. * Handling of the questions in the discussion. * Within the time constraints.

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		Items considered	6 (sufficient)	10 (excellent)
C. Implementation of the work itself	Project management	<ul style="list-style-type: none"> * Quality of project plan and time schedule. * Adherence to the planning. * Reliability (i.e., whether the student delivers something if promised, and timely). 	<ul style="list-style-type: none"> * The task given to the student is converted into a project plan, containing the main aspects and time schedule * Planning is not delayed more than 25 %, project management is done in collaboration with supervisor * The student delivers if promised, but needs to be remembered several times 	<ul style="list-style-type: none"> * The student defines a clear project plan, with milestones and deliverables, with a manageable and realistic time schedule. * Good project management: project finished on time, no delays. * Reliable, i.e., the student delivers if promised, and timely.
	Ability to carry out a project	<ul style="list-style-type: none"> * Analytic skills. * Dedication, persistence. * Critical attitude, independence. * Collaborative skills/ when appropriate: ability to work in a team. * Initiative, self-propelled. 	<ul style="list-style-type: none"> * The student makes some analysis of the problem first before acting. * The student is able to finish the project. * The student has a critical attitude towards its own results. * The student does his part in the team, but will not initiate collaborations him/herself, not active to promote teamwork, but does also not frustrate teamwork. * Demonstrated some initiative, needs sometimes help but can also work individually, modest but steady learning curve. 	<ul style="list-style-type: none"> * The student has an analytic approach to unravel the problem at hand, works in a structured way. * The student is highly motivated, puts a lot of effort in the project, is able to finish it in a decent manner, irrespective of setbacks. * (Justified) critical attitude to literature and own results; Independence in the formation of scientific ideas. * Good collaborative skills, team player. * Demonstrated a lot of initiative, is self-propelled, steep learning curve.

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