Important information about the BEP Data Science rules, assessment and the form:

Assessment form and assessment:

On the page 3 of this document, you can find the assessment form that needs to be used to assess the Bachelor End Projects Data Science (BEP Data Science). The knock-out criteria represent the basic entry requirements for assessment of the BEP Data Science. If the student does not meet these knock-out criteria, the normal BEP resit rule applies (see below). However, it is highly recommended for students and supervisors to pay attention to these knock-out criteria during the entire BEP trajectory. Note that the availability and assessment of a plagiarism scan is mandatory for assessment of the BEP Data Science.

Students can receive the following scores for the assessment criteria:
U = unsatisfactory/ insufficient – relates to a score of 4/10 or lower
S = satisfactory/ sufficient – relates to score of 6/10
G = good – relates to a score of 8/10
E = excellent – relates to a score of 10/10

Supervisors and second assessors need to fill out the form completely, including a brief explanation for each of the criteria. This explanation should state the main strong points and/or the points that can be improved. It is not necessary to discuss all sub-criteria.

Note that supervisors and second assessors can also select two boxes if needed (for instance, 'S' and 'G' to get a score of 7/10). The fourth assessment criterion, '*Make a justified choice for methods and techniques for data collection and data analysis and correctly apply them*' has a **higher weight** towards the final grade. Supervisors and assessors can (but are not required to) use the available excel file '*Guideline for grading BEP Data Science*' to calculate the final grade for the BEP.

Note that the final grade can be expressed in halves, and that this grade should be 6.0 or higher for the student to pass. In general, the typical scores are:

5 or lower	The work is unsatisfactory on many aspects overall.
6	Generally all the scores are only satisfactory (and not more), particularly on aspects concerning the methodology and conclusions of the report, and typically also on independence in execution. The remaining scores are good at best.
6.5	The work scores satisfactory (and not more) on aspects concerning the methodology and conclusions of the report, and typically also on independence in execution. The remaining scores are good at best.
7	About half of the scores are only satisfactory, and about half are good. The level of independence should be sufficient.
7.5	There may be some scores that are only satisfactory, but there are also many scores that are good, typically including the methodology and the conclusions. The level of independence should be sufficient.
8	The work is good with respect to most criteria. Typically, a solid piece of work with interesting although perhaps not very surprising results, achieved with a good level of independence.

8.5 The work is good with respect to most criteria and excellent with respect to some criteria. Typically, a solid piece of work with interesting although perhaps not very surprising results, achieved with a good level of independence.

9 The work is excellent with respect to several criteria and good with respect to the remaining criteria. The thesis presents an innovative solution to a complex problem, obtained with a high level of independence.

9.5 The work is excellent with respect to many criteria and good with respect to the remaining criteria. The thesis presents an innovative solution to a complex problem, obtained with a high level of independence.

10 The work is excellent with respect to all criteria and clearly outstanding. The work can lead to a publication at a workshop/conference or it can be applied with relatively little effort in an industrial context and/or a concrete (software) prototype.

Timeline of the BEP Data Science:

There are fixed timeslots for the BEP Data Science. For Semester A in AY 2024-25, the following important deadline holds:

Deadline for final BEP: 21 January 2025

The supervisor has the authority to deviate a few days from this deadline.

If students start their BEP outside the normal timeframe of the semesters, for instance an external project, the deadline for their final BEP will be maximum 4 months after they submitted a full project plan to their supervisor. The exact deadline will be determined in discussion with the BEP course coordinator.

Resit rule:

In case a student fails the final report (grade is < 5), will the student be given the opportunity to revise the report, thereby taking into account the feedback they received from the supervisor. If possible, the same first and second assessor will assess the re-exam of the report. However, as the re-exam sometimes falls in the middle of the summer holidays, it is possible that the re-exam will be assessed by different assessors. Note that only in exceptional circumstances, it is possible to score a grade higher than 6.5 for the resit. The Examination Committee decides whether there are exceptional circumstances on a case-by-case basis. Students needs to deliver their revised report within 30 days after their first grade became available.

If a student misses the deadline for delivering the final BEP data science, the supervisor registers a 'no show'. However, we encourage students to always hand in a concept version of the BEP, so that feedback can be received before the resit.

Note that improvement of the BEP grade when the student received a passing grade is not allowed, as students need to show they are able to do the BEP within the fixed time frame. This is also reflected in the learning goals and assessment form of the BEP Data Science.

Second assessor rule:

To ensure independence of the assessments, the assessors cannot have supervisor-supervisee relationship in a PhD project.

JBP000 BEP Data Science – Assessment Form, version December 2022

Student name:

Student number:

(I) Knock-out criteria:

All of the following criteria must be satisfactorily met in order to proceed to assessment. Failure to meet one or more of the criteria means that the work will not be graded.

1. Proper referencing that meets appropriate academic requirements is used, following a common and consistent referencing system like for instance APA (including bibliography and citation method).
2. The language use is of a sufficient level (including: grammar, spelling, punctuation)
3. The thesis has been written coherently.
4. Section headings and subheadings to paragraphs are clearly and logically formulated.

○ **(U) Unsatisfactory** ○ **(S) Satisfactory**

(II) Assessment criteria:

1. Develop and formulate a research question, including a well-defined description of the scope of the research question.

	U	S	G	E
1.1. The problem statement, scope, and context are clear.	☐	☐	☐	☐
1.2. The research questions are clear and follow logically from the problem statement.	☐	☐	☐	☐
1.3. The research questions have a clear link to data science (in terms of methodology and/or relevance).	☐	☐	☐	☐

Explanation:

2. Make a research plan under supervision, and can organize the activities to execute the research according to plan.

	U	S	G	E
2.1. The planning was concrete and feasible, taking into account the required study load and time frame.	☐	☐	☐	☐
2.2. The student needed minor guidance to organize the project according to the planning.	☐	☐	☐	☐
2.3. The student worked independently.	☐	☐	☐	☐
2.4. The student demonstrated a good working and learning attitude during the process and came with own creative ideas.	☐	☐	☐	☐

Explanation:

3. Make a justified choice for methods and techniques for data collection and data analysis and correctly apply them.

	U	S	G	E
3.1. Integrate and apply theoretical knowledge and practical skills acquired during the bachelor program Data Science on a research assignment.	☐	☐	☐	☐
3.2. The approach is adequate and well considered. Choices are clearly justified. All steps are explained in sufficient / appropriate detail.	☐	☐	☐	☐
3.3. The student acquired, stored and processed the data in an appropriate way, also taking into account relevant legal and ethical aspects. The collection, storage and processing of the data is well documented and justified.	☐	☐	☐	☐
3.4. The student correctly applied the data science methods and techniques required to address the research questions.	☐	☐	☐	☐

Explanation:

4. Explore and make use of scientific literature.

	U	S	G	E
4.1. The student identified the relevant literature and described it critically.	☐	☐	☐	☐
4.2. The student supports claims by citing relevant literature throughout the thesis.	☐	☐	☐	☐

Explanation:

5. The conclusion

	U	S	G	E
5.1. The conclusions are linked to the research questions, and substantiated by findings.	☐	☐	☐	☐
5.2. The student presents a well-considered discussion of the conclusions, including the merits and drawbacks of the study and avenues for further research.	☐	☐	☐	☐

Explanation:

6. Present the results of the project both orally and in writing.

	U	S	G	E
6.1. Formulations in text are clear and exact.	☐	☐	☐	☐
6.2. The presentation had a good structure. The rate, volume, and tone of the presentation are good and suitable for the audience.	☐	☐	☐	☐
6.3. The student made good use of text, tables, graphs, and graphics in the presentation. The layout of the slides is clear.	☐	☐	☐	☐
6.4. The student is able to answer questions in an appropriate way.	☐	☐	☐	☐

Explanation:

7. Reflect on decisions made during the execution of the research assignment.

	U	S	G	E
7.1. The student indicates strengths and weaknesses in the approach and weighs them relative to each other.	☐	☐	☐	☐
7.2. The student incorporated feedback from the supervisor and (if applicable) from peers.	☐	☐	☐	☐

Explanation:

Confidentiality

The supervisor declares that the thesis is:

◯ **Public** ◯ **Confidential for one year**

☐ **This thesis has been checked for plagiarism.**

Overall assessment

Date: **Grade:**

Signature of supervisor: _____

Signature of second assessor: _____

The supervisor submits this form to the student administration *electronically (mcs.csa@tue.nl)*, accompanied by the final version of the report and the (signed by student) declaration concerning the TU/e Code of Scientific Conduct below.

Please note that we will not process the grade without either one of the requested parts.

Information to be provided by the student

i) Declaration concerning the TU/e Code of Scientific Conduct for the Bachelor's final project

I have read the TU/e Code of Scientific Conduct.[1]

I hereby declare that my Bachelor's final project has been carried out in accordance with the rules of the TU/e Code of Scientific Conduct.

Date

Name

Signature

…….

[1] See: https://www.tue.nl/en/our-university/about-the-university/integrity/scientific-integrity. The Netherlands Code of Conduct for Academic Practice of the VSNU can be found here also. More information about scientific integrity is published on the websites of TU/e and VSNU.

ii) After your bachelor

We would also like to keep in touch with you after your graduation! If you like, you can share a personal email address with us, and agree with being contacted after your graduation.

☐ **I consent to be contacted by the program management after graduation**

Personal email address:

To understand how well our educational programs prepare the graduates for their master's program and professional careers, we would like to collect information about your master's plans and/or your first employment after your graduation.

If known, please indicate in the field below your master's program, and/or your first job (e.g., software engineer) and the employing organization.

Master's program and/or first job:
