

FACULTY OF ENGINEERING
Department Industrial Engineering

VACATION WORK REPORT

NAAM VAN STUDENT / NAME OF STUDENT

.....

STUDENTE NOMMER / STUDENT NUMBER

.....

HANDIG IN / HANDED IN

Eerste Maandag in Maart / First Monday in March

Eerste Maandag na September-reses / First Monday after the September recess

➔ PERIODE VAN OPLEIDING / PERIOD OF TRAINING:

FIRST / SECOND or BOTH

JAAR VAN STUDIE / YEAR OF STUDY

1 / 2 / 3 / 4 / 5

NAAM VAN FIRMA OF INSTANSIE BY WIE VAKANSIEWERKGEDOEN IS /
NAME OF FIRM OR INSTITUTION AT WHICH WORK WAS DONE

.....

This document should be included in the final report on vacation training to be handed in at the Dept. of Industrial Engineering

VACATION WORK CERTIFICATE

STUDENT'S NAME:

PERIOD OF TRAINING: **FIRST / SECOND or BOTH**

EMPLOYER'S NAME AND ADDRESS:

.....
.....

DATE SERVICE STARTED:

DATE SERVICE LEFT:

INTERRUPTIONS (IF ANY):

TYPE OF WORK DONE:

.....
.....

GENERAL CONDUCT:

.....
.....

REMARKS:

.....
.....

DATE:

.....
EMPLOYER'S SIGNATURE AND
OFFICIAL STAMP OF INSTITUTION

This document should, after completion, be included in the final report on vacation training to be handed in at the Department of Industrial Engineering.

English to follow

REËLS IN VERBAND MET VERPLIGTE VAKANSIE-OPLEIDING IN DIE NYWERHEID

1. ALGEMENE VOORSKRIFTE

- i) Twee termyne van vakansie-opleiding in die nywerheid word vereis as verpligte deel van die voorgraadse studies in die Bedryfsingenieurswese.
- ii) Behalwe waar gedeeltelike vrystelling toegestaan word, moet twee afsonderlike termyne van vakansie-opleiding voltooi word. Elke periode van vakansiewerk moet minstens **drie** weke in beslag neem.

Die vakkursus Vakansie-opleiding (Bedryfs) 351 moet enige tyd vanaf die begin van die tweede akademiese jaar, en die vakkursus Vakansie-opleiding (Bedryfs) 451 enige tyd vanaf die begin van die derde akademiese jaar voltooi word. Vakansie-opleiding moet so ver moontlik ononderbroke wees.

Dit is die verantwoordelikheid van elke student om self die nodige reëlings te tref vir vakansie-opleiding. Die Departement Bedryfsingenieurswese is egter bereid om studente hiermee behulpsaam te wees.

- iii) Indien die vakansieperiode lank genoeg is en 'n ononderbroke werkperiode van ses weke kan beding word by 'n maatskappy, mag die student beide termyne as een afhandel. Slegs een verslag word dan vereis. Dit word aanvaar dat baie ondernemings gedurende die Kersseisoen vir 'n periode sluit, en daardie onderbreking sal deur die Departement toegelaat word.
- iv) Vakansie-opleiding sal slegs erken word indien 'n bevredigende verslag daaroor by Departement Bedryfsingenieurswese ingedien word.
- v) Dit word verkies dat vakansie-opleiding gedoen word by ondernemings waar 'n professionele of gegradueerde ingenieur verantwoordelikheid vir die werk aanvaar, maar indien dit nie moontlik is nie, kan die student die Voorsitter se goedkeuring kry om by enige ander geskikte onderneming te werk. Die ingenieur hoef nie 'n bedryfsingenieur te wees nie.
- vi) Indien die student twyfel of 'n onderneming geskikte werk bied wat deur die Departement aanvaar sal word, kan navraag by die Koördineerder: Vakansiewerk gedoen word.
- vii) 'n Student is onderworpe aan die normale reëls en dissiplinêre regulasies van die instansie waar vakansie-opleiding ondergaan word. Ooreenkomstig Artikel 2 van die Wet op Nywerheidsversoening, Wet 28: 1956 met wysiging, is die Nywerheidswette van die RSA nie van toepassing op studente wat verpligte vakansie-opleiding ondergaan nie. Die Universiteit kan ook nie verantwoordelik gehou word vir beserings wat gedurende hierdie opleiding opgedoen word nie.
- viii) Studente onder die ouderdom van 21 jaar, wat buite die grense van die Republiek wil gaan werk, moet die skriftelike toestemming van hul ouers voorlê.
- ix) Indien 'n student glad nie vakansiewerk gereël kan kry nie, kan 'n geskikte projek met goedkeuring van die Voorsitter ook aangepak word en 'n verslag daaroor geskryf word.

2. GEDEELTELIKE VRYSTELLING OF UITSTEL VAN VAKANSIE-OPLEIDING

- i) Gedeeltelike vrystelling: 'n Aansoek met stawende dokumente kan by die Voorsitter ingedien word deur enige student, vir gedeeltelike vrystelling van vakansie-opleiding op grond van die volgende:
 - a) 'n aanvaarbare vakleerlingskap wat voltooi is, of ander goedgekeurde opleiding wat ondergaan is, en
 - b) 'n ander taak of projek soos goedgekeur deur die Voorsitter.
- ii) Uitstel: 'n Aansoek met stawende dokumente kan by die Voorsitter ingedien word om uitstel van vakansie-opleiding op grond van:
 - a) opleiding wat oorsee ondergaan word, en waartydens die volle voorgeskrewe periode nie ingepas kan word nie, en
 - b) mediese ongesteldheid wat tot gevolg het dat die volle voorgeskrewe periode nie ingepas kan word nie.

3. VERSLAE OOR VAKANSIE-OPLEIDING

- i) Om erkenning te kry vir enige termyn van vakansie-opleiding, moet elke student 'n bevredigende verslag daarvoor indien, nie later nie as die eerste Maandag in Maart (**vir 2023: Maandag, 6 Maart 2023**), in geval van opleiding gedurende die somervakansie; en nie later nie as die eerste Maandag na die tweede semester reses (**vir 2023: Maandag, 18 September 2023**), in die geval van opleiding gedurende die wintervakansie. Om aan hierdie tydvereistes te voldoen, sal studente by voorkeur die verslag voltooi by die beëindiging van die opleiding, sodat 'n kopie ter inligting, van en/of vir goedkeuring, direk aan die werkgewer beskikbaar gestel kan word wanneer nodig. Laasgenoemde is veral belangrik waar 'n werkgewer-firma vereis dat verslae om sekuriteits- of ander redes eers direk aan hulle ter insae gelewer moet word. Indien daar om hierdie rede 'n moontlikheid bestaan dat die verslag nie betyds by die Universiteit ingedien sal word nie, moet die student die Departementele Voorsitter dienooreenkomstig skriftelik daarvan verwittig vóór of op laasgenoemde datums.
- ii) Die volgende voorgeskrewe dokumente, hierby aangeheg, moet as die eerste twee bladsye van die verslag dien:
 - a) die bladsy met die student se inligting ingevul
 - b) 'n behoorlik voltooide, ondergetekende en gestempelde sertifikaat van die werkgewerfirma
- iii) **Indien 'n verslag, of enige gedeelte daarvan, van onbevredigende standaard is**, kan vereis word dat dit verbeter of heeltemal oorgeskryf word.
- v) Met die oog op die ontwikkeling van 'n vermoë om verslae in Engels te skryf, word vereis dat die studente die verslag in daardie taal skryf.
- vi) Om te verseker dat in die verslag voldoen word aan die vereistes met betrekking tot uniformiteit en die handhawing van 'n hoë standaard, is dit noodsaaklik dat daar gehou word by die voorskrifte van BYLAE A, hierby aangeheg.

REGULATIONS REGARDING COMPULSORY VACATION TRAINING IN INDUSTRY

1. GENERAL REQUIREMENTS

- i) Two periods of vacation training in industry are required as a compulsory element of undergraduate study in Industrial Engineering.
- ii) Except where partial exemption is granted, two separate periods of vacation work must be completed. Each period of vacation work must be of at least **three** weeks' duration.

The course Vacation Training (Industrial) 351 must be completed at any time after the start of the second academic year and Vacation Training (Industrial) 451 at any time after the start of the third academic year. Vacation training should be uninterrupted as far as possible.

It is the responsibility of each student to make the necessary arrangements for vacation training. The Department of Industrial Engineering is, however, prepared to provide students with assistance in this regard.

- iii) Vacation training will only be recognised if a satisfactory report on this is submitted to the Department of Industrial Engineering.
- iv) It is preferred that vacation training be done at organisations where a professional or graduate engineer assumes responsibility for the work, but if this is not possible, the student may obtain the Chairperson's approval to work at any other suitable organisation. The engineer need not be an industrial engineer.
- v) A student is subject to the normal rules and disciplinary regulations of the institution where vacation training is undergone. In accordance with Article 2 of the Industrial Conciliation Act No 28 of 1956, as amended, the industrial laws of the RSA do not apply to students who undergo compulsory vacation training. The University can also not be held liable for injuries that are sustained during this training.
- vi) Students under the age of 21 who want to work outside the borders of the Republic must submit written approval by their parents.
- vii) If a student is unable to arrange for vacation work, a suitable project, on which a report must be written, may be undertaken with the approval of the Chairperson.

2. PARTIAL EXEMPTION FROM OR POSTPONEMENT OF VACATION TRAINING

- i) Partial exemption: An application for partial exemption from vacation training, accompanied by supporting documentation, may be submitted to the Chairperson by any student, on the basis of the following:
 - b) an acceptable apprenticeship that has been completed or other approved training that has been undergone; and
 - c) any other task or project as approved by the Chairperson.
- ii) Postponement: An application for postponement of vacation training, accompanied by supporting documentation, may be submitted to the Chairperson by any student, on the basis of the following:
 - a) training that is undergone abroad and during which the full prescribed period cannot be accommodated; and
 - b) medical reason(s) as a result of which the full prescribed period cannot be accommodated.

3. REPORTS ON VACATION TRAINING

- i) To obtain credit for any period of vacation training, each student must submit a satisfactory report on this, not later than the first Monday in March (**for 2023: Monday, 6 March 2023**), in case of training during the summer holiday; and not later than the first Monday after the September recess (**for 2023: Monday, 18 September 2023**), in case of training during the winter holiday. To meet these time requirements, students should preferably complete the report at the end of the training so that a copy can be made available immediately for the information of/approval by the employer when necessary. The latter is particularly important when the employer organisation requires reports to be submitted directly to the organisation first for inspection for security or other reasons. If for this reason the possibility exists that the report will not be submitted to the University in time, the student must notify the Departmental Chairperson accordingly in writing on or before the abovementioned dates.
- ii) The following prescribed documents (attached) must be included as the first two pages of the report:
 - a) A completed form with the student's information; and
 - b) a properly completed, signed and stamped certificate from the employer organisation.
- iii) **If a report or any part thereof is of an unsatisfactory standard**, students may be required to improve it or to rewrite it completely.
- iv) With a view to the development of an ability to write reports in English, students are required to write the report in this language.
- v) To ensure that the report meets the requirements with regard to uniformity and maintaining a high standard, it is essential that the provisions of Appendix A (attached) be adhered to.

Bylae A / Appendix A

University of Stellenbosch Department of Industrial Engineering

General directive for reports on vacation training

1. Physical appearance

- 1.1 The complete electronic report to be submitted on SunLearn to be assessed online.

2. Language, style and grammar

- 2.1 The report must be written in English.
- 2.2 Write the report in the impersonal form - never use the first person.
- 2.3 Use short sentences and paragraphs.
- 2.4 A good report is clear and unambiguous. It is simple and direct.
- 2.5 Be brief and precise.
- 2.6 Avoid unnecessary technical jargon.
- 2.7 Avoid unnecessary abbreviations.
- 2.8 Prefer the concrete word to the abstract.
- 2.9 Prefer the specific word to the general.

Good style is like a clear pane of glass through which one can see objects on the other side, unaware that the glass is there. Good style improves readability and does not draw attention to itself.

3. Technique

- 3.1 Assemble and organise all the notes, tables, drawings and other material you need.
- 3.2 Plan the layout of the report first.
- 3.3 If time permits, make a draft report first, and then write the final report.
- 3.4 Write the draft rapidly and do not worry about factual gaps or not using the “right word”. These problems can be rectified in the final report.

- 3.5 Only relevant information should be included in tables, graphs or diagrams. This information will usually be evaluated results. The bulk of other numerical data and information should be included in numbered appendices (e.g. Appendix 13). All tables (e.g. Table 21), graphs and diagrams (e.g. Figure 16) used in the text, should be numbered (Arabic numbers are preferred) throughout the report. It is self-explanatory with a suitable descriptive title or caption.
- 3.6 The following page layout and general guidelines are prescribed for the final project report. It is good practice to use this layout for all your reports:
- A simple readable font, such as Times Roman, Arial, Calibri. It is recommended to use the same font-family through-out the report.
 - Font Size 11 pt.
 - 1.5 line-spacing.
 - 0.5 lines before and after each paragraph.
 - One line before each heading.
 - Headings should be highlighted in a consistent manner. All headings at the same level should be typed in an identical manner. A heading should not be typed on the last or second-to-last line of a page.
 - All foreign words such as *bona fide* or *et al.* have to be italicised.
 - Page numbers on each page.

4. Format of the report

The report should have the following sections/parts in the order set out below.

The “cover page” consisting of two separate pages:

Page 1 of this document with the following details filled in

- The name of the student and student number
- Period of vacation training completed: First/Second/Both
- Year of study (e.g. Third)
- The dates on which the training commenced and ended
- The name of the firm or institution at which the work was done

Page 2 of this document containing the Vacation work certificate

Vacation work certificate completed, stamped and signed by an authorised representative of the firm or institution. (A copy of the certificate is included).

Title page [numbering of pages begins here with page number i - not indicated on the page]

The following information should appear on the title page:

- The title of the report, e.g. *A report on vacation training completed at [name of company]*.
- The name of the student as author of the report [with other information as required by the department].
- To whom the report is addressed, i.e. *The Department of Industrial Engineering, Stellenbosch University*.
- The date of the report.

No logos or any other graphic material may appear on the title page.

Abstract [page number ii]

The abstract gives a short overview of the content of the report. It should briefly answer the questions: what, why, how and "so what"?

Table of contents

The table of contents should contain:

- The headings for sections and sub-sections
- Numbering for the sections and subsections up to the 4th subsection (eg. section 2, section 2.1, section 2.1.2, section 2.1.2.1). Only two or more subsections are indicated – no 2.1 if there is 2.2.

Page numbers for the front matter are given as Roman numerals

Page numbers for the main section start at page number 1 for the introduction (Section 1)

The title page and the section **Table of contents** is not listed in the "Table of contents".

Example

Table of Contents	
	Student's information
	Vacation work certificate
	Abstract
	List of figures [if used]
	List of tables [if used]
	Glossary [if used]
1.	Introduction
2.	General background for [company]
	2.1 Historical background
	2.2 Present size and location
	2.3 Divisions and departments
	2.4 Available transport and services
3.	[(3 + n) number of other sections]

7.	Conclusion
8.	References
	Appendix 1: [Title for Appendix 1]
	Appendix 2: [Title for Appendix 2]

List of figures

A list of numbered figures with their captions/titles and the page number on which they appear.

List of tables

A separate list of numbered tables with their captions/titles and the page number on which they appear.

Glossary or Nomenclature

When applicable an alphabetic list of all symbols and abbreviations used should be given.

Introduction (page 1, and numbered as section or chapter 1)

The aim of the introduction is in the first place to introduce *the report*, and not the company where the vacation work was done. The introduction would therefore follow a funnel shape to present or introduce the report:

- Wider context – how does the report fit in with the wider context of your engineering studies.
- Focus of the report – the specific vacation training that this report discusses, but not in great detail as this is done in the following sections.
- Organisation of information in the report – how the information is presented in the report to follow (telling your reader what to expect in what sequence).

General background for [company' s name]

The following general aspects in regard to the institution and the training should be covered in this section.

- The name and historical background.
- Present size and location.
- Divisions or departments.

Descriptive

The descriptive section should describe the work that you have done in more detail. Choose a heading for this section that reflects the work that you have done or the project that you were involved in – “descriptive” is a label not a heading.

The section can include a short summary of the work/project/investigation that was undertaken or witnessed. If work has been done on a project, a short account should be included to explain the reason why the project was undertaken and what importance it has for the firm or institution.

The section can be divided into the following two subsections:

- Technical: This section should include detailed descriptions of projects in which the student participated or of the work witnessed by the student. The department of the firm, the apparatus used and the experimental procedures (where applicable) should be described. Photographs, diagrams or drawings may be included in the text.
- Non-technical: This section should include, for the particular project, detailed descriptions (where applicable) of the organisation, management, lay-out, planning, production methods, handling of materials, quality control, buying and selling and maintenance, *etc.* Photographs, diagrams or drawings may be included in the text.

Summary of results

In the case of a project or whenever applicable, the most important evaluated results should be included in this section. The detailed bulk of experimental results, reading, calculation and data, *etc.*, must be included in suitable numbered appendices.

Discussion of results and recommendations

In this section the results obtained from investigations or observations should be discussed critically and the conclusions that can be derived from it, clearly stated. The recommendations must clearly indicate what action the firm or institution should take to improve the operation of the plant, procedures, working conditions and safety, *etc.*

Please note: Although students are encouraged to be critical, proper conduct will demand that no student express unreasonable criticism or make any derogatory remarks.

Conclusion

The report can also have a separate conclusion which looks back at the work done and ties in with what have been said in the introduction. It can also contain the most important recommendations.

References

Use any of the reference styles described by the University, but decide on one format and use it consistently through-out your report. Refer to the following University Library website for a description of the allowed referencing styles: http://www.lib.sun.ac.za/Library/eng/help/IG_Programme/IG/Refertechniques.html

Appendices

Appendices are numbered as 1, 2, 3, *etc.* There should be reference to all appendices in the main body of the report.

The appendices should contain the bulk of experimental readings, data, calculations, mathematical methods, computer programs and general information.

If information such as maintenance, start-up procedures, operating instructions, drawings, *etc.*, of a machine, apparatus or plant is considered of major importance for the purpose of the report, photocopies of such information should be included in appendices. (Under no circumstances should such information be copied down by hand. No credit will be given for such time wasting procedures).