

FACULTY OF SCIENCE

Industrial Attachment

Guidelines for Students



UNIVERSITY OF ZIMBABWE

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1. PREAMBLE

Under Faculty of Science regulations adopted in 2012, Industrial Attachment was made mandatory for all students enrolled for the Bachelor of Science (Honours) programme. Faculty of Science regulations require that students get attached to relevant institutions during their Level III study period for two semesters (one year). Attachments are anticipated to provide an enabling platform for a productive linkage between the University of Zimbabwe and its critical partners. The purpose of industrial attachment is to produce practically oriented graduates whose knowledge, skills, attitudes, values and ethics are consistent with job-related expectations and requirements in industry. In addition, it also links in-school training with on-the-job training which provides the student with the opportunity to align themselves with practical application of theoretical training, safety consciousness and interpersonal skills. The University of Zimbabwe anticipates, through this process, to afford opportunity to industry to assess the quality and relevance of its training, and where necessary, improve on it, thereby influencing the training of the next generation employees.

This booklet provides guidelines and practical advice to students registered for the Bachelor of Science (Honours) degree in the Faculty of Science. These guidelines will:

- ✓ Set up procedures from pre-placement through completion of the attachment, and provide the framework for students' engagement and activities while on industrial attachment, to enable students fulfill the requirements for the award of the Bachelor of Science (Honours) degree in the Faculty of Science;
- ✓ Provide students with copies of documentation that need to be completed by the attaching industry during period of attachment, and provide guidance on other requirements that students have to fulfill;
- ✓ Inform students on supervision and assessment procedures for the industrial attachment, including expectations from industry and Faculty of Science during the course of attachment.

Each student will be expected to register at the beginning of each semester and pay the full tuition fees. Students will be allocated an Attachment Supervisor (an academic staff member of Department) and a Placement Supervisor (an employee of the industrial institution). Students will be visited at least twice by the Attachment Supervisor. During visits, the Attachment Supervisor will interact separately with the student and the Placement Supervisor. The purpose of the visits is to maintain contact with the student and assess the student's overall performance and progress. A continuous tripartite interaction will be made among the student and the two supervisors, mainly through e-mail or messaging. Students will be expected to meet all other requirements contained herein.

Students go on attachment for a full academic year. The minimum attachment period for the Faculty of Science is nine (9) months. This is meant to allow those students who would have lagged behind in securing places for attachment to do so. It is **mandatory** for students enrolled in the Faculty of Science Bachelor of Science (Honours) programmes to proceed for industrial attachment for a period of at least nine months after completion of Level II of their study programme. Industrial attachment is a 120 course unit engagement that is assessed towards the completion of Level III of the Bachelor of Science (Honours) programme offered by Faculty of Science. Attachment is normally done during period September to May (but students may take up their attachment soon after publication of their Level II results). Industrial attachment for Faculty of Science is unique as it emphasizes on work related learning relevant to the understanding of lecture theory and courses in the science discipline.

Students enrolled in the Faculty of Science should be aware that Faculty has the responsibility to ensure that students are attached, and supervised and assessed in liaison with management at the place of attachment. It should also be noted that through industrial attachment, students are given real jobs in a real job environment, with all the attendant challenges and responsibilities. The attachment should not be viewed as part of the student's Level IV dissertation project where students gather data towards their dissertations, although students may identify research topics and develop research proposals during this period. The Department encourages students to identify projects related to issues of concern at their place of attachment, as this enables them to have direct supervision and access to resources and facilities that they may require for their research work later in their study programmes. It is expected that management at the place of attachment will task one of its senior personnel to act as supervisor for the student during the period of attachment.

Faculty of Science anticipates that industrial attachment will enable the student:

- To work with others, value team effort and learn that other people are essential if objectives of an organization are to be met;
- To have an opportunity to acquaint themselves with the various operational procedures in different departments in a working environment, thereby developing a repertoire of skills necessary in multi-operational organizations;
- To gain practical experience under industrial supervision, thereby reflecting on the theory learnt as they try to solve or explain a practical problem or situation;
- To engage in supervisory roles whereby the student is primarily responsible for other people's duties, thereby affording the student some opportunity chance to test their managerial potential.

2. REGULATIONS ON INDUSTRIAL ATTACHMENT

2.1 Industrial Attachment shall be a prescribed period of practical experience in a relevant industrial or research institution.

2.2 The four year BSc (Honours) degree programme shall normally include a two semester period of industrial attachment in a working environment.

2.3 Assessment of the Industrial Attachment will be carried out in accordance with the following regulations:

2.3.1. To obtain an overall pass, a student must pass the assessment in accordance with stipulations of Faculty Regulations as partly provided in sections that follow.

2.3.2. A student who fails the industrial attachment will not proceed to Level IV, and thus will be required to repeat.

2.3.3. Marks for the industrial attachment performance will be distributed according to the following:

- (i) assessment by the Placement Supervisor,
- (ii) assessment by the Attachment Supervisor
- (iii) student's industrial attachment report
- (iv) student's seminar presentation

in the ratio: 1:4:4:1

2.3.4. The final assessment mark shall be determined by the responsible Departmental Panel of Examiners. General Regulations on Proceed, Repeat and Withdraw shall apply to Industrial Attachment.

3. **FACULTY OF SCIENCE GENERAL GUIDELINES ON INDUSTRIAL ATTACHMENT/WORK RELATED LEARNING**

3.1. The student is subject to General Regulations of the University of Zimbabwe and the company regulations during the Industrial Attachment.

3.2. The student is expected to:

- ✓ Conform to the company's regulations, working time and discipline;
- ✓ Fulfill the supervisors' instructions concerning the training process;
- ✓ Complete a log book on a daily basis;
- ✓ Submit a written report to his/her Department at the end of the attachment period;
- ✓ Focus on the academic purpose in accordance with instructions of the supervisors;
- ✓ Place all effort at acquiring practical knowledge and skills in accordance with expected standard of academic training;
- ✓ Maintain good working relationship with all staff of the company;
- ✓ Promote the image of the University of Zimbabwe.

3.3. The choice of an institution for attachment rests with the relevant Department in liaison with Faculty, and is based on skills and practical experience the institution is capable of offering.

3.4. The student **must always bear in mind** that their conduct during the Industrial Attachment period will reflect not only on them, but also on the University of Zimbabwe, and that it may also affect any future relationship between University of Zimbabwe and the attachment institution.

3.5. The student may not switch institutions without the approval of their Faculty department.

4. **GRADING/EVALUATION OF THE INDUSTRIAL ATTACHMENT PROGRAMME**

Given the duration and intensity of the industrial attachment program and the rigor of the assessment (by placement supervisors, attachment supervisors, industrial attachment report, seminar), industrial attachment will carry a high weighting. The industrial attachment, being part and parcel of the academic program will be assessed, graded and the grades contribute towards the award of the degree. The industrial attachment will appear on the student's transcript as an independent course.

The student is assessed both by the company in which they are attached and the Faculty department in which they are registered. The Faculty department assigns an attachment supervisor who is an academic member of staff. The student under attachment has a standing supervisor (Placement Supervisor) at the company of attachment and he/she is involved in the assessment of the student.

According to Faculty of Science Regulations, a student must pass Industrial Attachment before registering for Level IV. The student's Industrial attachment report should be submitted "within an appropriate time – about the first week of May in Second Semester" such that the processing of Industrial Attachment marks coincides with the processing of the end of semester examination results. The Industrial Attachment Report will be marked by at least two (2) people, following guidelines and benchmarks of the University Quality Assurance handbook.

The student's industrial attachment report should be submitted as a spiral bound report printed on A4. The Attachment Supervisor, plus another internal examiner, will mark the report. The Department will grade it by considering the completeness of presentation with evidence of technical writing skills. Marks for the technical section will be adjusted to take into account the Attachment Supervisor's visit to the host organization and feedback from the Placement Supervisor. The report shall draw on material from a logbook which is also due for submission along with the Placement Supervisor's feedback reports.

The student's report should:

- Be spellchecked with proper usage of grammar;
- Be properly paginated (Note that the formatting of the document is marked);
- Be written in a technical style;
- Have a table of contents, appropriate referencing, figure and table captions, etc.;
- Have appropriate structure;
- Be written in the third person;
- Be concise: approximately 30 pages (excluding the cover page, table of contents page, appendices and any diagrams) of font Times New Romans, size 12, 1.5 line spacing; Have the learning outcomes described under each heading in the marking scheme as far as is reasonably practicable. Note that the report should be comprehensive as any activity carried out in the attachment but not mentioned in the report cannot be awarded any marks.

The proposed mark distribution for the report is shown below:

Item	Mark
1. Executive Summary	10
2. Introduction	10
3. Description of Attachment	30
4. Content of report describes the intern experience: original thought, content, structure, layout and quality of presentation	20
5. Impact of the internship	10
6. Conclusions & Recommendations	5
7. References and appendices	5
8. Typed, Times New Roman 12 pt, 1.5 spacing	5
9. Grammar, spelling and punctuation	5

Total points possible	100
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5. STUDENT PLACEMENT

At the beginning of the attachment, the student, in consultation with the Placement Supervisor, will fill in the Student Placement Form and the Outline Programme Form. These forms ought to be immediately completed upon placement [Refer to Appendices 1 & 2)]. The student will also complete the Industrial Attachment Orientation Form (Appendix 3) which must be endorsed by the Placement Supervisor. Upon completion, these forms must be immediately dispatched to Faculty department. At the end of the attachment, the student shall complete the Student Evaluation Form (Appendix 4). This evaluation form should be completed as soon as the field attachment ends and handed to the field attachment coordinator.

6. STUDENT'S REPORT

This is one of the most crucial written works the student has to do to show how he/she has learnt during industrial attachment. The report should be compiled based on the student's log book, outline programme agreed upon at the beginning of the attachment, and overall objectives of the attachment based on the study programme being pursued in the Faculty of Science.

The report shall be approximately 30 typed pages. In the report, the student will provide detailed and analytical extension of the work placement, emphasizing on how elements of their degree programme can be adopted to enhance performance parameters within the company. The student is will draw upon their academic learning in order to critically evaluate the company's operations and performance.

The report must be factual, covering:

- ✓ Work done and practical knowledge acquired. Critical assessment of the experimental skills gained from the attachment. Identification and analysis of any difference between theory studied and operational practices experienced. [This section is key to the quality of the report].
- ✓ Principle products / services and technological outline of the institution. Identification of special opportunities and problems faced and means adopted for exploiting and overcoming these during the attachment.
- ✓ Description and analysis of performance criteria and targets set for the attachment programme.

Note: Submission deadline for the student's report is first week of May. The proposed format for the industrial attachment reports is in Appendix 5.

7. ATTACHMENT SUPERVISOR'S REPORT

The Attachment Supervisor's report shall be based on supervisor's observations on conduct and performance of the student. It will also be based on interactions among the student and the two supervisors. The Attachment Supervisor will review the student's progress and performance with the student and the Placement Supervisor, and if necessary, will assist with drawing up an outline programme for the student. The Attachment Supervisor will visit the student at least twice during the attachment. During these visits, the Attachment Supervisor will hold informal discussions with the student to facilitate understanding of the context of the attachment. He/she will also have a private discussion with the Placement Supervisor, and if necessary/possible, have a short tour of

the organisation that the student is attached to. Schedules of visits by the Attachment Supervisor will be communicated to the partner institution and/or Placement Supervisor in advance. The Attachment Supervisor's reports, which will be a feedback form in the form of a score sheet, will be written on the spot and given to the student with copies to the Placement Supervisor and Industrial Attachment Coordinator. Besides the visits to the students, the Attachment Supervisor will consistently interact with the Placement Supervisor through telephone or email regarding the student's progress.

8. ATTACHMENT INSTITUTION'S RESPONSIBILITIES

The Attachment Institution will be requested to:

- ✓ Ensure that the student is given the necessary instructions/ information within a week of engagement with the institution to enable him/her to complete the Student Placement Form, Outline Programme Form and Industrial Attachment Orientation Form (see Appendices 1, 2 and 3);
- ✓ Assign a member of the attachment institution to act as Placement Supervisor;
- ✓ Develop an outline programme for the student's job activities and training;
- ✓ Complete the Placement Supervisor's report which is in the form of a score sheet (Appendix 6), and approve the student's report;
- ✓ Communicate to the responsible Faculty department any matters that may arise not already covered by the normal communication process.

APPENDIX 1

Faculty of Science, Department



INDUSTRIAL ATTACHMENT

UNIVERSITY OF ZIMBABWE

STUDENT PLACEMENT FORM

(Complete and submit to Faculty department immediately upon placement)

APPENDIX 2

Faculty of Science, Department of



INDUSTRIAL ATTACHMENT

UNIVERSITY OF ZIMBABWE

OUTLINE PROGRAMME FORM

(Complete and submit to Faculty department immediately upon placement)

The following schedule outlines the proposed programme of training which the student will follow during his/her first period of employment with the Attachment Institution. This covers the first period from the time the student is engaged at the institution.

Department or Function Area	Proposed Training / Experience / Project	Approximate Time Span of Training / dates

Company_____

Work Supervisor_____

Student Name_____

Degree Programme & Part_____

APPENDIX 3

Faculty of Science, Department of



INDUSTRIAL ATTACHMENT UNIVERSITY OF ZIMBABWE

INDUSTRIAL ATTACHMENT ORIENTATION FORM

(Complete and submit to Faculty department immediately upon placement)

Name of student _____ Start Date _____

Employer _____

The following items should be included in the student's induction into the organization. Please check off the items below when they occur and inform the Attachment Supervisor of any items not covered within one week of the start of the attachment. The list is not exhaustive and other topics may be covered, which the student may note.

TASK	DATE
Introduction to key staff members and their roles explained	
Location of toilet facilities	
Location of rest room and, canteen (where relevant), etc.	
Lunch, tea and coffee arrangements	
Place of work	
Dress code	
Work space	
How to answer the telephone. Transfer calls and make calls both internally and externally	
Post arrangements	

HEALTH & SAFETY ISSUES	DATE
Emergency procedures	
Safety policy received or location known	
Location of first aid box	
First aid arrangements (including names of first aiders)	
Fire procedures and location of fire extinguishers	
Accident reporting and location of accident book	
Manual handling procedures	
Industrial safety regulations	
Instruction on equipment you will be using	
Other issues:	

Student's Signature _____ Date: _____

Checked by the Work supervisor before forwarding to the University of Zimbabwe:

Supervisor's Signature _____ Date: _____

Received by Department of , University of Zimbabwe

Industrial Attachment Co-ordinator / Chairperson: _____

Faculty of Science, Department of



UNIVERSITY OF ZIMBABWE

STUDENT EVALUATION FORM

This evaluation form should be completed as soon as the field attachment ends and handed to the Attachment Coordinator.

1. What do you consider to be the major strengths of the field attachment?
2. How have you specifically benefited from participating in this field attachment?
3. How do you think the district/organization/community you were attached to benefited from your field attachment activities?
4. How relevant is the field attachment to your degree programme?
5. What constraints have you experienced during the field attachment period, and how do you think these constraints could be overcome?
6. What changes if any would you wish to see in the organization and management of the field attachment program to make it more effective?
7. What kind of knowledge do you think would have enabled you to perform better during the field attachment?
8. What skills do you think would have enabled you to perform better during the field attachment?
9. How adequate was your field supervision?
10. How do you think the field attachment program could be appropriately evaluated?

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Employer's Assessment Form

APPENDIX 5

Faculty of Science, Department of



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INDUSTRIAL ATTACHMENT REPORT FORMAT

The following is a proposed general guideline of the sections expected in the Industrial Attachment Report:

1. Title Page
2. Acknowledgements
3. Abstract
4. Introduction-the student should place the attachment in context by describing the organisational structure and commercial environment of the company. It should include:
 - 4.1 A history of the organization
 - 4.2 The area the student was attached to within the organisation
 - 4.3 The objectives of the attachment
5. The technical section
 - 5.1 This provides a breakdown of the technical work undertaken during the placement. If the student worked on more than one project during their placement they should describe each in turn (even if they were running simultaneously). Any formal training undertaken should be summarised. The student may use material from their logbooks and any reports made to the organisation.
 - 5.2 Challenges, how the student dealt with them and Lessons Learnt. The Lessons Leant section is reflective and is written in the first person describing the technical and non-technical experience gained throughout the attachment.
 - 5.3 Conclusions chapter, giving prominence to the student's successes during the placement and recapping on the main points of the technical chapters
 - 5.4 Recommendations
6. Appendices-charts, graphs, pictures, computer codes, company statements, company forms, etc
 - 6.1 Log of activities the student undertook (they can make a copy of their logbook and attach it to the report)

7. Any other relevant documentation or text which should be concise with details not described in the body of the report.

APPENDIX 6

Faculty of Science, Department of ...Statistics.....



UNIVERSITY OF ZIMBABWE

STUDENT ASSESSMENT FORM BY THE PLACEMENT SUPERVISOR

NAME OF ORGANIZATION.....

NAME OF STUDENT.....

	Needs Improvement 1,2,3			Average 4,5		Above Average 6,7,8			Outstanding 9,10	
Criteria	1	2	3	4	5	6	7	8	9	10
Punctuality	1	2	3	4	5	6	7	8	9	10
Discipline	1	2	3	4	5	6	7	8	9	10
Organizes work well	1	2	3	4	5	6	7	8	9	10
Completes assigned tasks on time	1	2	3	4	5	6	7	8	9	10
Initiative/Resourcefulness	1	2	3	4	5	6	7	8	9	10
Accuracy of work	1	2	3	4	5	6	7	8	9	10
Ability to work well with peers	1	2	3	4	5	6	7	8	9	10
Adaptation to working conditions	1	2	3	4	5	6	7	8	9	10
Communication skills	1	2	3	4	5	6	7	8	9	10
Capacity to work under pressure	1	2	3	4	5	6	7	8	9	10
Working with minimal supervision	1	2	3	4	5	6	7	8	9	10
Depth of theoretical knowledge	1	2	3	4	5	6	7	8	9	10
Decision making capacity	1	2	3	4	5	6	7	8	9	10
Relationship with superiors	1	2	3	4	5	6	7	8	9	10
Attitude towards work	1	2	3	4	5	6	7	8	9	10
Ability to apply theory in practice	1	2	3	4	5	6	7	8	9	10
Leadership qualities	1	2	3	4	5	6	7	8	9	10
Personal integrity	1	2	3	4	5	6	7	8	9	10
Ability to learn new things	1	2	3	4	5	6	7	8	9	10

Signature of Work Supervisor_____ Date

and Stamp:_____

Received and Checked by the Department of, University of Zimbabwe_____

Date & Official Stamp
