Table of Contents

1. INTRODUCTION

1.1 In line with the University's thrust to "…contribute to the advancement of knowledge and its practical application….", the Faculty of Agriculture and Environmental Science (FAES) emphasises the need for students to acquire practical experience that is much sought after by employers. Students in the Faculty are therefore required to undergo a compulsory period of Industrial Attachment (IA) as part of their degree programmes for acquisition of practical skills and knowledge. In order to ensure high quality work-related learning, the faculty partners with organisations likely to provide meaningful and relevant working experiences.

1.2 Normally, a student shall start and finish the period of attachment at the same organisation. If it becomes necessary for a student to change his/her place of attachment, the student should first obtain permission in writing from the department. The application for change of place of attachment shall indicate the postal and physical addresses of the company or industry to which he/she wishes to transfer and the reasons for the transfer. Change of place of attachment not properly authorised shall be nullified.

1.3 This manual starts by listing reference and operational documents. This is followed by identification of key personnel in the IA process; description of IA activities (pre-IA phase, IA phase, and the post-IA phase).

2. REFERENCE DOCUMENTS

2.1 This manual shall be read in conjunction with the following documents among others:

2.1 1 Rules of Student Conduct and Discipline Ordinance 4, 2001;

2.1.2 General Academic Regulations for Undergraduate Degrees of the Bindura University of Science Education (BUSE);

2.1.3 Programme Specific Regulations as they apply to each student; and BUSE Student Industrial Attachment Policy and,

2.1.4 Faculty Standard Operating Procedures (FaSOPs)

3. DESCRIPTION OF OPERATIONAL DOCUMENTS

The set of operational documents for implementation of IA are as follows:

Document		Purpose
Reference No.	**Description**	
FAES-IA001	Academic Supervisors' Assessment Form	For examining student by the university lecturer(s)
FAES-IA002	Academic Supervisors' Visit Report	Confirms students assessment and describes challenges encountered
FAES-IA003	Attachment schedule	Shows learning areas that a student should cover
FAES-IA004	Company Database Sheet	Provides a list of eligible organisations for student placement including addresses and contact details
FAES-IA005	Host Organisation Supervisors Assessment Form	For examining the student by the host organisation supervisor
FAES-IA006	Guidelines for Student Industrial Attachment Report	Guides student in writing the Final IA Report
IA00X	Introductory Letter	Introduces the student to host organisations
FAES-IA007	Log-Book	Provides a record of student training and continuous assessment
Form C/I. A. 1	Placement Form	Confirms attachment of a student
FAES-IA008	Schedule of Students	Lists students who are due for attachment including their gender and any special requirements

4. STAFFING STRUCTURE AND RESPONSIBILITIES

4.1 The IA structure shall consist of a Faculty Industrial Attachment Coordinator and Departmental Industrial Attachment Coordinators. The Faculty Industrial Attachment Coordinator shall be selected from the Departmental Industrial Attachment Coordinators.

4.2 These coordinators shall perform the duties of the Industrial Liaison Officers at their respective levels.

4.3 Academic members within a department shall constitute the pool of academic supervisors.

4.4. The Host Organisation Supervisor, who shall be in-charge of the day-to-day supervision of a student on IA.

4.5 Other personnel that are involved directly in IA include Student Academic Advisors, Departmental Chairpersons, Faculty Dean, Deputy Registrar Academic, Dean of Students, Director Marketing and Development and the University Industrial Liaison Officer.

5. PRE-INDUSTRIAL ATTACHMENT PHASE ACTIVITIES/TASKS

	Description of activity/task	**Timing**	**Responsible person(s)**	**Operational document(s)**
5.1	Preparing a database of organisations that are relevant to the students' degree programmes	Two weeks into the semester preceding IA	Departmental Coordinator	Company database sheet
5.2	Submitting a list of students for IA placement to the Faculty Coordinator and distributing the list to students	Three weeks into the semester preceding IA	Departmental Coordinators	Schedule of Students
5.2	Submitting the Faculty list of students eligible for IA to the Faculty Dean and University Industrial Liaison Officer	Four weeks into the semester preceding IA	Faculty Coordinator	Schedule of Students
5.4	Orienting students on IA	Prior to Final	Faculty Coordinator;	All except

		Examinations for ; the semester preceding the IA	BUSE Industrial Liaison Officer; Dean of students	Schedule of Students
5.5	Issuing to students all documents required for the purposes of IA including those required by Host Organisation Supervisors to assist them in the supervision process	Prior to Formal Examinations for ; the semester preceding the IA	Departmental Coordinator	All except Schedule of Students
5.6	Collecting all documents required for the purposes of IA from the Departmental Coordinator including those required by Host Organisation Supervisors	On or before the orientation day	Student	All except Schedule of Students
5.7	Securing attachment (this involves preparing and submitting the application package, and attending interviews)	Immediately after orientation	Student	All except Schedule of Students

6. INDUSTRIAL ATTACHMENT PHASE ACTIVITIES/TASKS

	Description of activity/task	**Timing**	**Responsible person(s)**	**Operational document(s)**
6.1	Appointing a Host Organisation Supervisor	Upon accepting a student for IA	Host Organisation Management	All except Schedule of Students
6.2	Formulating an attachment	First of attachment	Host Organisation	Attachment

	programme and issuing it to the student		Supervisor	schedule
6.3	Submitting a Placement Form to the Departmental Coordinator copied to the Faculty Coordinator and the University Industrial Liaison Officer	within five working-days after being accepted by the Host Organisation	Student	Placement Form
6.4	Developing a schedule and corresponding budget and submitting the documents to the Faculty Dean for approval	At the end of the placement period (Jan for Aug intakes and May for Feb intakes)	Faculty Coordinator	Completed Placement Form
6.5	Arranging trips as scheduled in liaison with sister Faculty Coordinators	Once the schedules and budgets are approved	Faculty Coordinator	Completed Placement Form
6.6	Completing/Filling in Log-book	From first day at place of attachment up to the end of the attachment period	Student	Industrial Attachment Log-book
6.7	Commenting on the student's learning progress and performance in the in the Log-book.	[1]Weekly from the beginning to the end of the IA period	Host Organisation supervisor(s)	Attachment Schedule and Industrial Attachment Log-book
6.8	Monitoring and Supervising to ensure that the student receives proper training, and recording	Normally twice (one during the first half and the	Academic Supervisor	Attachment Schedule, and Industrial

	comments on in the log-book	other one during the second half)		Attachment Log-book Academic Supervisors' Visit Report
6.9	Examining the student's performance on IA	Normally once during the second visit	Academic Supervisor	Academic Supervisors' Assessment Form

[1]This ensures that if the student is to rotate to several departments and units each unit supervisor will comment on the student's performance.

7. POST-INDUSTRIAL ATTACHMENT PHASE ACTIVITIES/TASKS

	Description of activity/task	**Timing**	**Responsible person(s)**	**Operational document(s)**
7.1	Undertaking an overall assessment of the student's learning progress and performance as per the Host Organisation Supervisors Assessment Form that shall be provided by the University.	After the last day of the prescribed IA period.	Host Organisation Supervisor	Host Organisation Supervisors Assessment Form
7.2	Completing the Host Organisation Supervisors Assessment Form in confidence and sending in a sealed envelope or scanning the filled-in and stamped forms and sending them electronically to	Soon after completing Host Organisation Supervisors' Assessment Form	Host Organisation Supervisor	Host Organisation Supervisors Assessment Form

	the Chairman of the respective Department			
7.2	[2]Submitting an IA Report and the Log-book	Within two (2) weeks after the completion of Industrial Attachment	Student	Log-book and Guidelines for Student Industrial Attachment Report
7.4	Convening an IA experiences feedback meeting with students, and other stakeholders involved in industrial attachment	Within four (4) weeks after the completion of Industrial Attachment	Faculty Coordinator	Not applicable

[2]Students are encouraged to start writing the IA Report whilst they are still on attachment starting from the first quarter.

APPENDICES: COPIES OF OPERATIONAL DOCUMENTS

Appendix 1: Academic Supervisors' Assessment Form (FAES-IA001)

Appendix 1.1 Student Attachment Assessment Report – First Visit

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE

STUDENT ATTACHMENT ASSESSMENT REPORT – FIRST VISIT

Personal Details

Name of Student ……

Registration Number ……..

Degree Programme……

Name of Host Organisation……

Name of Work Supervisor …….

Date of Visit ……

Rating Key

Rating	**Explanation**	
1	Unsatisfactory	Below 50%
2	Satisfactory	50% - 59%
3	Competent	60% - 64%
4	Highly Competent	65% - 74%
5	Outstanding	75% +
N/A	Not Covered, Had no exposure	

A. Understanding Of The Organisation	1	2	3	4	5	N/A
1. Core business of the organisation.						
2. Organisational Structure.						
3. Organisational Work Ethics.						

4. Organisational Policy. (e.g. Environmental, Safety and Health Policy)						
5. Knowledge of organisation operations cycle						
B. General, Conduct And Behaviour						
1. Adaptability.						
2. Teamwork/ Cooperation.						
3.Punctuality						
4. Commitment.						
5. Attitude towards management.						

General Comments

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Endorsements

1. Name of Assessor: .....

Signature: .....

2. Name of supervisor:.....

Signature: .....

Name of student: .....

Signature: .....

Date: (dd/mm/yyyy).....

Appendix 1.2 Student Attachment Assessment Report – Second Visit

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE

STUDENT ATTACHMENT ASSESSMENT REPORT – SECOND VISIT

Section A: Personal Details

Name of Student ……

Registration Number ……..

Degree Programme……

Name of Host Organisation……

Name of Work Supervisor …….

Job Title of Work Supervisor ……..

Name of Visiting Academic Supervisor ……..

Date of Visit ……

Section B:	**Rating Key**	
Rating	**Explanation**	
1	Unsatisfactory	Below 50%
2	Satisfactory	50% - 59%
3	Competent	60% - 64%
4	Highly Competent	65% - 74%
5	Outstanding	75% +
N/A	Not Covered, Had no exposure	

A. Evaluation Of Students' Work	1	2	3	4	5	N/A
1. Planning.						
2. Coordination.						
3. Innovativeness.						
4. Achievement of set tasks.						
B. General, Conduct And Behaviour						

1. Adaptability.						
2. Teamwork/ Cooperation.						
3. Knowledge of organisation operations cycle.						
4. Commitment.						
5. Attitude towards management.						
C. Progress on Research Project						
1.Project topic						
2. Is it researchable?						
3. Set up of field work.						
4. Data collection.						

General Comments

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Evaluation of student by host organisation (To be completed by the mentor or line manager)

	1	2	3	4	5	N/A
1. Reliability.						
2. Motivation.						

3. Teamwork/ Cooperation.						
4. Employability rating.						
5. Leadership Skills.						
6. Is the student articulate?						

General Comments

.....

.....

.....

.....

.....

.....

.....

.....

.....

Rating

Actual Marks Obtained	
Total Possible Marks	
Overall Marks In Percentage	

Endorsements

1. Name of supervisor: .....

Signature: .....

2. Name of supervisor: .....

Signature: .....

3. Name of student: .....

Signature: .....

Date Stamp

Appendix 2: Academic Supervisors' Visit Report (FAES-IA002)

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE

INDUSTRIAL ATTACHMENT ACADEMIC SUPERVISORS' VISIT REPORT

(To be submitted by the Team Leader to the Chairpersons of the relevant Departments and Dean within three (3) days after the last day of the visit)

1. Length of Assessment Period

Date of Departure (dd/mm/yyyy): Time of Departure (24 hour notation):

Date of Return (dd/mm/yyyy) : Time of Arrival (24 hour notation) :

2. Summary of Student Assessments

Surname	First Names	Registration Number	Organisation	Date Assessed

3. Comments on Individual Students' Performance (Comments outlined here should be in tandem with Academic Supervisors' Assessment Form (FAES-IA001) without necessarily repeating it).

4. Challenges Encountered by the Assessing Team and Possible Solutions

5. Comments from Host Organisation

5.1 Curriculum-related comments

5.2 General comments

6. Signatures of the Academic Supervisors:

	Surname and Initials	Signature	Date (ddmmyyyy)
1			
2			
3			
4			

Appendix 3: Attachment schedule (FAES-IA003)

Appendix 3.1 Programme: Bachelor of Agricultural Science Honours degree (Animal Science) Attachment Schedule

Preamble

During industrial attachment a student needs to work in all departments involved in the operations cycle or activities of the organisation. Taking cognisant of the fact that different organisations have various and diverse activities it is not possible to come up with a one size fits all recommendation. This document presents a proposed attachment program for Animal Science students.

Learning Outcomes

At the end of the Industrial Attachment period student should be able to:

- demonstrate appreciation of current production technologies and management practices;
- demonstrate critical thinking and problem solving capacities as they apply theoretical knowledge to practical situations in industry and farm situations.
- identify shortcomings in a particular production system and offer possible solutions which are economically, socially and environmentally acceptable;
- apply animal handling and husbandry techniques, disease prevention, diagnosis, and treatment techniques.
- develop problem identification techniques, design scientific experiments and be able to if they are attached to research institutions; and

Guidelines for the Attachment Programme

	Key Aspects/ Activities	**Time** **(Week)**
1	**Familiarization with the Organisation** Introduction to the organisation Sections, Personnel, Mentor/ Supervisor, Mission, Vision, Values, SOPs, Code of conduct, ethics etc.	1

2	**Production Department** Breeders Section: • Selection of Breeders/ replacement stock or purchasing of breeding animals and management of breeding stock Nutrition; Health; reproduction management Placement plans	2-9
	Commercial stock sections: Management of commercial stock • Nutritional management/ Ration formulation/ feeding Health management/ Veterinary department • Preparing stock for slaughter/ fattening • Transportation • Slaughter • Storage, distribution, marketing of the product • Product quality issues • Health and environmental issues	10- 17
3	**Marketing Department** • Sales • Advertising/ marketing	18- 21
4	**Finance Department**	22- 27

	• IT and Data capture • Financial records • Accounts • Procurement • Stores management	
5	**Human resources management** • Wages • Payroll • Disciplinary hearings • Labour Act • Organisational structure • Code of conduct • Security	28- 32
6	**Report Compilation**: • Weekly reports; Routine reports, progress reports, investigation reports Attachment report writing and presentation to the organisation's management	When required

Appendix 3.2 Programme: Bachelor of Agricultural Science Honours degree (Crop Science) Attachment Schedule

Preamble

This document serves to give organisations to which our students will be attached a guideline of the expectations of the university on areas that the students should go through. The host organisation supervisors will find this helpful as it aligns the attachment programme to the goals and objectives of the Industrial Attachment.

Learning Outcomes

At the end of the programme, the student should be able to

- plan a cropping programme;
- manage a crop from planting up to marketing including management of finances and human resources;
- assess and evaluate cropping programmes and;
- solve to problems faced during the implementation of cropping programmes.

Expectations from the host organisation

The university expects the following from the host organisation;

i. A mentor/supervisor should be assigned to the student, the mentor is to be anybody who can take the student through organisational processes especially those related to Crop Science. The mentor is to oversee the activities of the student.

ii. Orientation of the student on the activities of the organisation, preferably the students can be given a feel of all the functional areas so that they can develop an appreciation of the inter-linkages between the departments.

iii. A work plan can be developed for the students by the host organisation following the general guideline which will be in this paper

Guideline of the attachment programme

The attachment programme is supposed to run for a minimum of 8 months. If the organisation and the student are in agreement, the period may stretch beyond the stipulated time.

It is assumed that the host organisation has the following departments a production, human resource, finance, safety and health and engineering. These departments may not be clearly defined especially in smaller organisations but it is expected that activities that are related to

them will be there in the organisation and the students should be taken through them. The following is a time guideline on how the student can be taken through the attachment programme. Please note that this guideline is not written on stone, the supervisor may make the periods in some departments shorter especially where the departments are very integrated like the small farms. Time spent in some departments may be made longer if the supervisor feels that the student has not grasped concepts well.

Orientation – 2 weeks

Student to be taken on a familiarisation tour of the organisation, in the different departments so that they get to know people, processes, places and procedures. They may spend at least a day in a department for the familiarisation.

Safety and Health and Environment Department – 1 week

Student to be taken through the safety procedures, health policies and environmental policy and see these in application in the department.

Production – 6 months

This is the main thrust of the attachment. If the organisation is into the production of crops, then the student has to go through the production cycle of the different crops. This should include, crop planning, land preparation, nursery management, land preparation, planting, identification and control of weeds, diseases, and pests. In research organisations, these areas may not be as clear-cut especially in institutions involved in laboratory research. In such situations the student will be guided by procedures of the host organisation.

Engineering 2- weeks

Student is to have an appreciation of use, maintenance and calibration of the equipment.

Human Resources – 2 weeks

Student to be involved in labour planning and supervising of small groups of the work force. Where possible the students should be allowed into committee meetings resolving disputes and other labour issues like disciplinary hearings.

Finance – 2 weeks

The University appreciates the sensitivity of this department especially for private entities. The main intention is for the student to be exposed to budget and cash-flow preparations. The supervisor may isolate small components of the enterprise so that the student can have some

practice in these areas. The student should be allowed to evaluate the profitability of some ventures when they are done.

General Comments

Note that in all instances, the student must start by acquiring hands-on experience, and when they have acquired the experience, the line supervisors can allow the student to take a supervisory role under their guidance for the students to have a managerial feel in the work environment. Where possible the student can be given the opportunity to solve real life problems under the guidance of the supervisor.

University Academic Supervisors from the department shall normally visit the students twice for the length of the attachment period. The first visit will be to check on the settling in of the students and the last assessment will be to check on how much the student has learned. The line supervisor is to score the student against the parameters spelt out on the availed form.

Lastly, the department would like to state it categorically that no misbehaviours will be tolerated from the student, any misconduct should be reported to the industrial attachment Coordinator who will inform the chairperson. If solutions are not found then the issue will be directed to the dean. The department and faculty offices are open for communication if there are issues to be discussed. For communication please use the following numbers: Department attachment co-ordinator, Mr Mutsengi (vhurandi@gmail.com) - 0773104557, Department Chairperson, Ms Kamota (agathar.kamota@gmail.com) - 0773154520, Faculty Senior Assistant Registrar Mrs Nyama (cdnyama@buse.ac.zw) - 0772960816

It is hoped that the student will be of benefit to your organisation much as they are going to benefit from the knowledge and skills that they are going to acquire during their stay with your organisation

Appendix 3.3 Programme: Bachelor of Agricultural Science Honours Degree (Agricultural Education and Extension, and Bachelor of Science Honours Degree in Agricultural Economics and Management) Attachment Schedules

Learning Outcomes

The Department of Agricultural Economics, Education and Extension seeks to nurture competent agricultural economists and extension education specialists and practitioners who can generate, analyse and implement sound scientific principles in tackling the challenges of food insecurity and sustainable agriculture.

3. 3.1 Schedule for Bachelor of Agricultural Science Honours Degree (Agricultural Education and Extension) students

Department	**Activities**	**Period (months)**
Crop husbandry extension	Cereal production	3
	Oilseed production	
	Cash crops: tobacco, horticulture, cotton	
Animal husbandry extension	Large livestock	3
	Small livestock	
	Game and wildlife	
	Pastures and Range Management	
Farm Structures and Machinery	Farm buildings	2
	Farm equipment and machinery	
	Farm Roads	
	Irrigation and conservation works	

Farm and Agribusiness Management	Farm planning	2
	Farm Budgets and Accounts	
	Marketing and Value Chain	
	Farmer Training and field days	
	Management of Extension Programmes	

3.3.2 Schedule for Bachelor of Science Honours Degree in Agricultural Economics and Management

Department	**Activities**	**Period (months)**
Market Analysis	Trend Analysis- (Prices and Outputs)	2
	Assess market performance	
Organisation Management	Record Keeping	2
	Budgets	
	Planning	
	Assess performance of different enterprises	
Financial Planning	Profit and loss statements	2
	Balance sheets	
	Decision making	
Policy Analysis	Review of policies	2
	Assess the effects of different policies on the organisation	
Data Analysis	Trend Analysis	2
	Modelling and simulation	

Appendix 3.4 Bachelor of Environmental Science Honours Degree in Forestry Attachment Schedule

Preamble

The bachelor Science Honours degree in Forestry and Environmental Management degree at Bindura University of Science Education is offered as a four year programme of which the third year of training is for Industrial Attachment (at least 8months). The thrust of the industrial attachment is to develop and capacitate students with knowledge, attitudes and competencies to enable them to function as Foresters, Forest resource managers environmentalists, consultants, researchers etc. The industrial attachment offers the student the opportunity to relate theory with practice on the ground, to put theory into practical form, and to sharpen, This Industrial Attachment Training Programme lays out areas and activities that the Student should cover during the period of attachment in the concerned organisation.

Learning outcomes

By the end of the Industrial Attachment period students should be able to:

1. work independently on tasks given;
2. give feedback in the form of reports and presentation;
3. carry out and manage all core-activities of the organistaion that are related to their study programe;
4. demonstrate an understanding of professional and ethical practice;
5. dress appropriately;
6. allocate time effectively;
7. serve clients and stakeholders; and
8. participate as a member of a team.

	Key Aspects/ Activities	**Time Guide (Weeks)**
1	**Familiarization with the organisation** ▪ Policies: mission, vision, values, ▪ Envioronmental policy, ▪ Work ethics ▪ Operations: Core business, work flow charts, departments/units, reporting structure and responsibilities, standard operating procedures ▪ General Induction in various units of the organisation e.g.	1

	human resources, engineering, laboratory, stores, Marketing etc	
2	**Forest/Environmental Management** Participate in production and review of plans such as ▪ Strategic plans ▪ Tactical plans ▪ Annual plan of operations ▪ Training plans ▪ Safety and health plans ▪ Environmental management plans	Ongoing throughout the attachment period
3	**Nursery** ▪ Site selection ▪ Soil collection ▪ Seed collection ▪ Pot filling/Seedbed preparation ▪ Seed sowing ▪ Seedling pricking out ▪ Seedling care (Watering, Pest monitoring and management, Disease monitoring and management) ▪ Root pruning ▪ Hardening off	4
4	**Field planting** ▪ Site preparation (Slash removal, Ripping, Marking, Pitting) ▪ Planting ▪ Survival Assessments ▪ Blanking ▪ Spot weeding	4
5	**Silvicultural/Tending Operations** ▪ Cleaning ▪ Weeding ▪ Thinning (regimes, methods and safety consireations) ▪ Pruning (Equipment, Procedure) ▪ Safety	4
6	**Forest Protection** Fire guard preparation ▪ Fire detection ▪ Fire fighting ▪ Disease and pest assessments ▪ Disease and pest control	Ongoing throughout the attachment period
7	**Harvesting** ▪ Harvesting plans	4

	▪ Familiarisation with harvesting equipment (Chainsaws, skidders, tractors, teleloggers, Haulers etc) ▪ Chainsaw use (Safety precautions, Operation, Directional felling, and Maintenance) ▪ Bucking ▪ Yarding methods ▪ Timber forwarding	
8	**Sawmill** ▪ Safety Induction ▪ Familiarisation with equipment ▪ Timber seasoning (Air drying, Kiln drying) ▪ Timber treatment (Methods, Chemicals, Environmental aspects, Quality assurance)	
9	**Human resources Management** ▪ Induction ▪ Management of labour force ▪ Conducting safety drills	1
10	**Accounting Department** ▪ Record keeping ▪ Any other duties assigned	1
11	**Marketing department** ▪ Sales ▪ Advertising	1
12	**Report Compilation** ▪ Routine reports, progress reports, investigation reports ▪ Attachment report writing and presentation to the organisation's management	Ongoing throughout the attachment period

Appendix 3.5 Bachelor of Environmental Science Honours Degree in Natural Resources Management Attachment Schedule

Preamble

The bachelor of Environmental Science in Natural resources Management (Hons) degree at Bindura University of Science Education is offered as a four year programme of which the third year of training is for industrial attachment (at least 8 months).

Learning outcomes

The thrust of the industrial attachment is:

1.1 To develop and capacitate students with knowledge, attitudes and competencies to enable them to function as Natural Resource managers, environmentalists, consultants, researchers etc.

1.2 To offer the student the opportunity to relate theory with practice on the ground, to put theory into practical form

1.3 To enable students to gain organisational skills and professional awareness.

1.4 To develop the student's ability to work under supervision and directions from line supervisors efficiently.

This Industrial Attachment Training Programme lays out areas and activities that the Student should cover during the period of attachment in the concerned organisation as shown on the table below.

No.	**Key Aspects/ Activities**	**Time (weeks)**

1	**Familiarization with the organisation** ▪ Policies: vision, mission, values ▪ Work ethics ▪ Operations: Core business, work flow charts, departments/units, reporting structure and responsibilities, standard operating procedures General Induction in various sections of the organisation	2
2	**Legal framework for Natural Resources Management** • Participate in the application of Zimbabwean legal instruments in Natural Resources Management: ACTS (EMA, Water, Forest Act, Wildlife and Parks Act); and other Statutory Instruments. Indigenous knowledge systems Enforcement of laws and sanctions	2
3	**Environmental Impact Assessment** Participation in EIA Screening, Scoping, Consultations, and Reporting Environmental degradation (land, soil, water pollution etc).	2
4	**Field surveys** • Participation in Soil survey and Vegetation survey Water sampling procedures etc	4
5	**Community based NRM** Participation in different community engagement exercises Participation in social issues affecting sustainable management and utilization of forest resources ▪ Visits to natural resources sites ▪ Stakeholder engagements in NRM ▪ Training communities in NRM issues ▪ Conservation education ▪ Community participation in protected area management	4

	▪ Human/Wildlife conflict Management ▪ Collaborative management ▪ Mobilization of political and local level support	
6	**Conservation of natural resources** Participation in the following: wild land fire management; fire control techniques; sustainable exploitation of Non-Timber Forest Products, sustainable wetlands management and waste management	4
7	**Natural Resources Analysis and Valuation** Participation in NRM as a business - principles, procedures and valuation process for the appraisal of natural resources ▪ Application of economic principles to problems in Natural Resources, such as multiple uses of forest lands, including wildlife, recreation, watershed, timber production and consumption ▪ Natural Resource Allocations ▪ Valuation of resources-types of values, market, non-market ▪ Application of Economics in Renewable and Non Natural resource Management Issues ▪ Elements of profitability in Natural Resources Cost-benefit analysis	
8	**Environmental Education/Environmental Management**: Participation in: rehabilitation of degraded lands, awareness campaigns in communities, environmental monitoring, and planning environmental educational programmes	4
9	**Human resources Management**: recruitment, selection, training and development, performance appraisal, wage/salary administration, discipline and labour relations	1
10	**Project Planning and Management in NRM** Participation in the following: project and strategic planning, project	4

	proposal preparation and identification, monitoring and evaluation of projects, and project appraisal and general management.	
11	**Attachment report** (routine, progress, investigation and reports) compilation Attachment report writing and presentation to the organisation's management	1

Appendix 3.6 Bachelor of Science Honours Degree in Safety, Health and Environmental Management Attachment Schedule

Preamble

The Bachelor of Science Honours Degree in Safety Health and Environmental Management is offered as a four year course in which during the third year the student is obliged to undergo work related learning for a period of at least8 months. Work related learning is a platform that affords students an opportunity to develop diverse skills in a real life organisational context. These skills are indispensable to the professional growth of the student as well as being also beneficial to the host organisation. As it is impossible to provide a straight jacket prescription of activities to be undertaken by students on attachment owing to organizational diversity of operations, a generic outline of activities is outlined for an organization with a typical SHE department.

Learning outcomes

At the end of the Industrial Attachment period students should be able to:

1. identify hazards and prescribe solutions.
2. to communicate effectively
3. to be team players
4. carry out safety drills and risk management.
5. demonstrate an appreciation of professional and ethical practice.
6. develop and implement environmental management plans
7. utilize time judiciously.
8. carry basic food inspection.

Proposed Attachment Programme

Key Aspects/ Activities	**Time Guide (Weeks)**
1. Familiarization with the organisation ▪ Policies: mission, vision, values, ▪ SHE policies, where not available draft them and present draft to management for consideration ▪ Work ethics ▪ Operations: Core business, work flow charts, departments/units, reporting structure and responsibilities, standard operating procedures ▪ General Induction in various units of the organisation e.g. human resources, engineering, laboratory, stores, finance e.t.c.	**5**
2. Planning, implementation, monitoring and evaluation 2.1 Participate in production and review of plans such as ▪ Emergency preparedness and response plans ▪ Environmental Management Plans ▪ Waste management plans ▪ Departmental monthly, quarterly, biannual and annual work plans ▪ Training plans etc ▪ Environmental Statements	**4**
2.2 Projects/programme monitoring and evaluation ▪ Procedures ▪ Methods/tools e.g. Participatory rural appraisal, goal achievement matrix, logical framework analysis ▪ Indicators e.g., process and output indicators	
3. Risk assessment and management ▪ Familiarisation with methods e.g. HAZOP, HIRA, Fault Tee Analysis, Failure Mode Effect Analysis, Job safety analysis ▪ Environmental Aspects, Impacts and legal aspects registers ▪ Accident/incident investigation: rationale, methods, procedures, Legal provisions, etc ▪ Production of hazard profile maps ▪ Orientation to the organisation risk control strategies ▪ Risk communication ▪ SHEQ report	**8**

4. Information, Education and Communication (IEC) ▪ Identify safety, health and environmental problems requiring conduction of educational sessions ▪ Plan, deliver appropriate educational talks to applicable target audiences ▪ Use appropriate teaching/learning methods, aids ▪ Manage and Evaluate the educational sessions rendered	**3**
5. SHEQ systems orientation ▪ ISO 14001:2004 system elements, development and implementation ▪ Environmental Management Accounting and Auditing ▪ ISO 9001:2008 system elements, development and implementation ▪ OHSAS 18001:2007 system elements, development and implementation	**4**
6. Environmental monitoring ▪ Noise, dust, light, gas and vibration measurements and monitoring ▪ Air quality monitoring ▪ Collection and analysis of water, sewage and leachate samples ▪ Waste rock dumps and tailings dam rehabilitation	**8**
7. Food safety management ▪ Conduct basic food inspection ▪ Practise inspection of food premises ▪ Perform food sampling ▪ Swab , analyse and interpret food handlers, equipment and surfaces ▪ Perform food handlers physical assessment ▪ Conduct food handlers training ▪ Exposure to sitting and design considerations of food premises with bias on preventing food cross contamination ▪ Exposure to food safety systems e.g. HACCP, FHMs, SOPs, GHK, PLD , GMPs etc	**3**
8. Report writing and presentations ▪ Routine reports, progress reports, investigation reports ▪ Attachment report writing and presentation to the organisation's management	**1**

Appendix 3.7 Bachelor of Science Honours Degree in Wildlife Ecology and Management Attachment Schedule

Preamble

The bachelor of Wildlife and Rangeland Management at Bindura University of Science Education is offered as a four year course of which the third year of training is for industrial attachment (at least 8 months) and undertaking of a relevant academic research project. Student Industrial Attachment Programme (SIAP) is a "work-based experience programme" providing a real-life organisational context for students to develop specific or generic skills, valuable to their professional development. Students can apply and enhance their skills in reality, contribute to the organisation, and, at the same time, obtain invaluable guidance from their mentors. Since wildlife is a broad subject that encompasses all the undomesticated plants and animals, the University appreciates that our students will be attached in different organizations dealing with a section of wildlife. As Bindura University of Science Education, have developed an industrial attachment programme that details some of the activities are expected cover in their respective organizations.

Learning outcomes

1. Punctuality: The host organization is expected to emphasize the importance of punctuality, especially regarding meeting set objectives and targets of the organization. Students are expected to report for duty on time during the whole attachment period.
2. Taking instruction and execution: Students are expected to be able to take instruction from their mentors and be able to execute duties with efficiency.
3. Independence: students are expected to be able to work independently (with minimum supervision) by the time they finish their industrial attachment.
4. Report writing: students are expected to be able to give feedback in the form of reports and presentation to their mentors.
5. Fieldwork skills: Students are expected to participate in park/game ranch management activities and field monitoring studies (eg vegetation).

Description of activity	Time (months)
Familiarization: ▪ Mission, vision and values of the organization	1

▪ Work ethics ▪ Operations: Core business, work flow charts, departments/units, reporting structure and responsibilities, standard operating procedures ▪ General Induction in various units of the organisation e.g. human resources, engineering, laboratory, stores, finance etc	
Report writing: The standard way of writing reports within the organization.	1 month and ongoing
Operations: ▪ Workshop: general maintenance of equipment, fixing tyres, cleaning vehicles. ▪ Anti-poaching activities. Tracking of poachers tracks. Prolonged periods in the bush, survival tactics. Pitching of tents	2
▪ Feed formulation (for those in fish, crocodile production as well as on small game ranches. ▪ Game counts: water hole counts, aerial counts, spoor counts, road strip counts ▪ Vegetation assessment: Vegetation identification. ▪ Vegetation structure assessment. ▪ Game capture: Planning a capture operation. ▪ Research data processing: application of ANOVA, Kruskal Wallis test, t-test, Wilcoxon Signed Rank test. ▪ Applications of GIS in ecology: Production of habitat maps.	4
Hospitality: attending to tourists and visitors at the company/organizations, and planning meetings, taking minutes etc	1

Appendix 4. Company Database Sheet (FAES-IA004)

Host Organisation Name	Physical Address	Contact Details (email and telephone)
Acturus		
Afmine & Exploration, Freda Rebeca Goldmine Site, Bindura		
African Sustainability Consultants,	3rd flr Bard House, 67 S Machel Ave	
Africa University Farm	Africa University, Mutare	
Agritex Provincial Office, Bindura		
Agritex, Karoi Office		
Agritex, Zaka		
Baldmin Holdings	Burton/Princess Rd, Belvedere Square	
Beta Holdings	Brickfield Road, Mt Hampden	
Bindura Rural District Council	Manhenga	
Birdlife		
Bulawayo City Council		
BUSE Farm		
CAFCA,	54 Lytton Rd, Workington	
Caritas Masvingo, Beitbridge St Mary Sec Sch Office		
Chibero Agric. College	Off Bulawayo Rd, just after Norton	
Chiredzi Rural District Council		
CIMMYT Zimbabwe	UZ Farm, near Defence College	
City of Harare	Rowan Martin Bldng	
Coffee Research Institute, Chipinge	Cori off Charles Murray Rd,	
Cotton Training Institute	Kadoma	
Dairibord Zimbabwe,	1225 R Tangwena	

Dambari Wildlife Trust, Bulawayo	7 Abercombe Rd, Worringham, Bulawayo	
DR&SS	5th St Extension Near State House	
Dzikwa Trust	3147 Rujeko St, Dzivarasekwa	
Eden Sheq Safety, Health & Heath Env Consultancy	Batanai Gardens J Moyo/1st	
EMA, Masvingo	3 Hllet rd	
EMA, Bindura	Mutungagore Building	
EMA, Bluffhill	685/6 Lorraine drive	
EMA, Chinhoyi	Old Chinese Complex, opposite provincial hospital	
EMA, Chiredzi	Rm 4 NSSA Bldng,	
Forestry Commission, Highlands	1 Orange Grove Drive	
Forestry Commission, Gokwe		
Forestry Commission, Mutoko		
Freda Rebeca Gold Mine, Bindura		
Fresh Harvest	62 New Havean House, 6th/Chitepo	
Goldfields of Mazowe		
Goldfields of Shamva	2 Richlands Road, Shamva	
Grasslands Research Station	Marondera	
Gutu Rural District Council		
Gutu Veterinary Services Field		
Gwebi Agric. College	27km along Chinhoyi Rd near Nyabira	
Harare City Council	92 L Takawira, Cleveland Hse	
Ministry of Agriculture Head Office		
Hippo Valley Estates, Chiredzi		
Harare Region Electricity House,	Wynne/R Manyika	
Hwange National Park, Sinamatella Camp		
Kadoma City Council	Fitt Square, Kadoma	

Kairezi Subcatchment Council	Rochdale Complex, Nyanga	
Knowledge Transfer Africa	Harare City Council Community Services, Mbare	
Kunatsa Estates, 43km Ruya Falls Road, Matepatepa, Bindura		
Kushinga Phikelela National Farmer Training Centre, Marondera		
Kwekwe City Council		
Lake Kariba Fisheries		
Makoholi Research Station, Masvingo		
Mawenje Consulting, Avondale	5 Aberdeen Rd, Avondale	
Metallon Corporation, Bulawayo Mining Company	Old Tuli Rd	
Mimosa Mining Company	Dadaya Road, Zvishavane	
Ministry of Health and Child Welfare, Concession District Hospital		
Ministry of of Local Gvt, Bindura	DA's Complex, 125A R Mugabe,	
Msinje Farm,	26 km peg Shamva-Harare Highway	
Mukuvisi Woodlands		
Municipality of Chegutu	1 Queen St	
Mutasa Rural District Council		
National Foods Ltd Maize Mill	13 Foundry Rd, Aspindale	
National Parks, Botanical Gardens	Sandringham/Borrowdale Rd	
Nemchem International, New Ardbennie	9 Spurrier Rd, New Ardbennie	
Nhimbe Fresh Exports, Marondera	Churchill Farm Marondera	
Natinal Railways of Zimbabwe (NRZ)		
Nyanga National Park		
Parks & Wildlife Management Authority, Mushandike College		
Pedstock Investment	Harare Drive/Alpes Rd, Vainona	

PetroZim Line	Lot 7 Ventusburg Farm, Delpot Road, 6 Seagrave Mt Pleasant	
Planet Africa	168 Smuts Road, Prospect, Waterfalls	
Pioneer Hibred International	Emerald Hill Business Park	
Rio Zim Renco Mine		
Sustainable Afforestation Association Chinhoyi Lions den cluster		
Sustainable Afforestation Association Holton farm Macheke		
Southern Alliance for Indigenous Resources (SAFIRE)	132 Upper Fourth Street, Mutare	
Saimoona Farm, Bindura		
SEEDCO, Kadoma Station		
Seedco, Rattray Arnold Research Station	Chisipite	
Scientific and Industrial Research and Development Center (SIRDC)	1574 Alpes Rd/Technology Drive, Hatecliffe Extension	
Southdown Estate	Eastern Border Rd, Chipinge	
Suncrest Farm/Chikundu Safaris, Odzi		
Sustainable Afforestation Association (SAA)	Farm 5 Dorasdale Featherstone	
Sustiglobal	80 Central Avenue, Harare	
Tanganda Tea Company, Jersey Tea Estate, Chipinge		
TRB Kutsaga	After Airport, Towards Manyame Airbase	
Triangle Limited	Triangle	
Trojan Nickel Mine, Bindura		
United Nations Educational, Scientific and Cultural Organization (UNESCO) Regional office	8 Kenilworth Rd, Newlands	

Veterinary Field Services, Chiredzi		
Wattle Company, Nyanga, Pine division		
Wattle Company, Nyanga Pine, Mutasa		
Windmill Pvt ltd	Coventry Rd	
Zimababwe Electricity Transmission and Distribution Company (ZETDC)	25 Samora Machel Avenue Harare	
Zimbabwe Sugar Association Experiment Station, Chiredzi	99km Ngundu/Tanganda Rd	
Zimbabwe Alloys Chrome	1899 Bristol Rd, Gweru	
Zimbabwe consolidated diamond company	6 Constantia avenue Strathaven,Hre	
ZimChemRefiners New Zimsteel Works	Redcliff, Kwekwe	
Zimbabwe Power Company (ZPC)	12th flr Megawatt Hse, 44 S Machel Ave	
ZPC, Harare Power Station	6 Coventry Rd, Workington	
ZPC, Hwange Power Station	Old Victoria Falls Road, Hwange	
ZPC, Munyati Power Station		

Appendix 5. Host Organisation Supervisors Assessment Form (FAES-IA005)

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE

STUDENT ATTACHMENT ASSESSMENT REPORT – SECOND VISIT

Section A: Personal Details

Name of Student ……

Registration Number ……..

Degree Programme……

Name of Host Organisation……

Name of Work Supervisor …….

Job Title of Work Supervisor ……..

Name of Visiting Academic Supervisor ……..

Date of Visit ……

Section B: Rating Key

Rating	**Explanation**	
1	Unsatisfactory	Below 50%
2	Satisfactory	50% - 59%
3	Competent	60% - 64%
4	Highly Competent	65% - 74%
5	Outstanding	75% +
N/A	Not Covered, Had no exposure	

A. Evaluation Of Students' Work	1	2	3	4	5	N/A
1. Planning.						
2. Coordination.						
3. Innovativeness.						
4. Achievement of set tasks.						
B. General, Conduct And Behaviour						
1. Adaptability.						
2. Teamwork/ Cooperation.						
3. Knowledge of organisation operations cycle.						
4. Commitment.						
5. Attitude towards management.						
C. Progress on Research Project						
1.Project topic						
2. Is it researchable?						
3. Set up of field work.						
4. Data collection.						

General Comments

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

.....
.....

Evaluation of student by host organisation (To be completed by the mentor or line manager)

	1	2	3	4	5	N/A
1. Reliability.						
2. Motivation.						
3. Teamwork/ Cooperation.						
4. Employability rating.						
5. Leadership Skills.						
6. Is the student articulate?						

General Comments

.....
.....
.....
.....
.....
.....
.....
.....
.....

Rating

Actual Marks Obtained	
Total Possible Marks	
Overall Marks In Percentage	

Endorsements

1. Name of supervisor: .....

Signature: .....

2. Name of supervisor: .....

Signature: .....

3. Name of student: .....

Signature: .....

DATE STAMP

Appendix 6. Guidelines for Student Industrial Attachment Report (FAES-IA006)

FAES-IA006

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE

GUIDELINES ON WRITING AN INDUSTRIAL ATTACHMENT REPORT

Preamble

The purpose of this guideline is to provide a framework by which industrial attachment reports should be written. This is necessary as a quality assurance measure that will enhance standardization of student reports and objective allocation of marks by the examiners.

1. **Cover Page of the Report**

   University Name (Bold-font size 18), Department Name (Bold-16), Title (Bold/italics-14), University Logo, Student name and ID (Bold-12), Purpose and Date of Submission (Bold-12). Don't forget the border.

2. **Title Page of the Report**

   Must list organisation's name, Address, Contact details, Period of attachment, Industrial supervisor (contact details), Academic supervisor and Date of submission.

3. **Preliminary Pages**

   - Declaration, Acknowledgements, Dedication
   - Abstract
   - Table of contents **[10 marks]**

4. **Introduction**

   - Description of organisation's operations, location map, production cycle, relevance of various organizational departments and student's niche in the host organisation.

   [20 marks]

5. **Activities Covered During Attachment**

   - Duties in various departments, value added to host organisation, challenges and solutions encountered, extra mural activities and new technologies learnt.

[30 marks]

6. Application of Knowledge Taught

- ❖ Ability to integrate taught courses and industrial demands

[20 marks]

7. Student's Evaluation of Industrial Attachment

- ❖ Discussion of experience and knowledge gained by the student including conflicts between theory and practice
- ❖ Conclusion and recommendations **[20 marks]**

8. Report Length and other features

The report shall be from 15 to 20 pages long inclusive of pictures and references.
Spacing shall be 1.5
Font type shall be Times New Roman
Font size shall be 16 for headings, 14 for subheadings and 12 for ordinary text.
Margins shall be normal with the following dimensions:

Top	1″
Bottom	1″
Left	1″
Right	1″

9. References (if any) and Appendices

- ❖ e.g. photos at attachment, applications the student was exposed to, working documents produced, work plan etc.

Appendix 7. Introductory Letter (IA00X)

BINDURA UNIVERSITY OF SCIENCE EDUCATION

Date

Dear Sir/Madam

STUDENT INDUSTRIAL ATTACHMENT FOR 2017/ 8

I am writing on behalf of Bindura University of Science Education requesting your assistance with the attachment of the following Third Year student, **(Name of Student),** Registration Number **B1128359.**

The student is studying for a four-year (**name of degree programme**).

During the third year of study**,** students are required to do industrial attachment for a minimum of eight months. During the period they are expected to apply their theoretical knowledge to practical work situations through the assistance of mentors in the organizations to which they will be attached.

Students are expected to be on industrial attachment from August (**specify year**).

We will be happy to furnish you with additional information about industrial arrangements and procedures, if our request is considered.

Yours faithfully

AR GWATA [Mr]

Industrial Liaison Officer

Appendix 8. Log-Book (FAES-IA007)

BINDURA UNIVERSITY OF SCIENCE EDUCATION
FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE
STUDENT INDUSTRIAL ATTACHMENT LOG-BOOK

1. Introduction

This book shall be used by the student to keep a record of Industrial Attachment (IA) training. The records shall include departments and sections in which the student has worked and the periods of time spent in each. The Host Organisation Supervisor shall comment on the student's learning and performance in the log-book weekly. The Academic Supervisors shall study the log-book and comment on the learning and performance of the student during the Industrial Attachment Assessment Visits. The student shall be required to submit the log-book together with the Final Industrial Attachment Report. The Host Organisation Supervisor shall use or design a log-book following guidelines provided in section 3 of this document and issue it as a bound copy to the student or a digital form whichever is convenient him/her.

2. Description of Records and Reporting Frequency

2.1 Student

Record daily work clearly with sketches and diagrams where applicable at the end of every working day and should indicate the tasks done (including the level of accomplishment) and the skills learnt. The logbook should be kept by the student at the work place. At the end of each week the student shall compile a summary of the work done in that week and present the logbook weekly to the industry-based supervisor for assessment of content and progress.

2.2 Academic Supervisor

The Academic Supervisor will check the logbook when he/she visits the student to check on whether proper training is being received or not, and record his/her comment in the log-book.

2.3 Host Organisation

Host Organisation Supervisor(s) shall make comments on a weekly basis in the log-book. This is to ensure that if the student is to rotate to several departments and units each unit supervisor will comment on the student's performance. The supervisor can comment on any page where necessary but he/she should sign and stamp the last page for that week. Whilst the comments can be typed in, the signature should be hand-written.

3. Sample Log-book Pages

FULL NAME OF STUDENT (surname first)_____

REGISTRATION NUMBER: _____GENDER: Male/Female

ATTACHMENT PERIOD: FROM:_____TO:_____

(DD/MM/YYYY) (DD/MM/YYYY)

NAME OF ATTACHMENT ORGANISATION AND ADDRESS:_____

_____

_____

_____

FULL NAME OF HOST ORGANISATION SUPERVISOR (surname first):_____

DAILY ATTACHMENT RECORDS

DAY/DATE	DAY'S ACTIVITIES
MONDAY	
…….	
TUESDAY	
…….	
WEDNESDAY	

…….	
THURSDAY	
…….	
FRIDAY	
…….	
SATURDAY	
…….	
SUNDAY	
…….	
HOST ORGANISATION SUPERVISORS' COMMENTS	

Full Name (surname and initials):……..Designation:…….....
Date:(dd/mm/yyyy)…….Signature:……..

BLANK PAGE FOR DRAWINGS/DIAGRAMS/SKETCHES/PHOTOGRAPHS/NOTES/CALCULATIONS/ E.T.C.

PAGE RESERVED FOR ACADEMIC SUPERVISOR'S COMMENTS INSERTED SUCH THAT COMMENTS CAN BE MADE AFTER EVERY QUARTER

ACADEMIC SUPERVIORS' COMMENTS

Full Name (surname and initials):……..Designation:…….....
Date(dd/mm/yyyy):…….Signature:…….....

Appendix 9. Placement Form (Form C/I. A. 1)

Form C/I. A. 1

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE

Student Placement Form
(*Complete in duplicate and submit to Faculty Assistant Registrar*)

A. Student Details

Student Reg No.: ……..

Surname **:** ……

First Name **:** ……

Sex **:** ……

National I. D. **:** ……

Programme **:** ……

Contact

Address **:** ……

Telephone **:** ……

E-mail **:** ……

Placement

Organisation **:** ……

Contact Address **:**
……

Physical Address : ……

Telephone : ……

Fax : ……

Supervisor's Name : ……

Telephone : ……

E-mail : ……

This is to confirm that the above stated student commenced work-related learning at this organisation this…….day of ……..200…

Signed……..

Appendix 10. Schedule of Students (FAES-IA008)

Obtainable from the Departments.