

ARRANGEMENT OF SECTIONS

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IT is hereby notified that the Minister of Higher and Tertiary Education, Innovation, Science and Technology Development has, in terms of section 32(1) and (2) of the Manpower Planning and Development Act [*Chapter 28:02*], made the following regulations:—

Title

1. These regulations may be cited as the Manpower and Planning Development (Bio-Medical Engineering Industry) Regulations, 2023.

Application

2. These regulations shall apply to the Bio-Medical Engineering Industry.

Interpretation

3. In these regulations—

“Authority” means the Ministry of Higher and Tertiary Education, Innovation, Science and Technology Development;

“industry” means Bio-Medical Engineering Industry;

“skilled worker” unless otherwise specified in relation to the designated trade, means a skilled worker class 1;

“fund” means (ZIMDEF) Zimbabwe Manpower Development Fund;

“competency test” means a practical trade test;

“indentured” means contract of apprenticeship.

Prescription of occupations and designation of trades

4. The occupations listed in the First Schedule shall be designated trades requiring Apprenticeship training for certification as a skilled worker in terms of the Act.

Qualifications for commencing apprenticeship

5. (1) The minimum age for commencing Apprenticeship shall be sixteen years.

(2) The minimum educational qualifications for commencing apprenticeship in a non-technician trade shall be—

- (a) passes in grade “C” or better in English Language, Mathematics, a relevant Science subject and any other two subjects at “O” level or relevant National Foundation certificates from an approved examination board;
- (b) a relevant technical subject shall be an added advantage.

(3) The minimum educational qualifications for commencing apprenticeship in a technician trade shall be—

- (a) passes in grade “B” or better in Mathematics;
- (b) a relevant Science subject;
- (c) grade “C” or better in English Language;
- (d) any other two subjects at “O” level or relevant National Foundation certificates from an approved examination board;
- (e) a relevant technical subject shall be an added advantage.

Period of apprenticeship

6. (1) The period of apprenticeship required before certification as a skilled worker in all the trades shall be four years.

(2) The Authority may, if it is satisfied that an apprentice has received previous apprenticeship training in the industry or in the occupation or trade in which he is indentured, reduce the period of his apprenticeship by such time, not exceeding the time of the previous apprenticeship training, as it considered equitable in the circumstances.

(3) Notwithstanding the provisions of subsection (1), if an apprentice has, before the commencement of his or her apprenticeship, completed a period of service, employment or training—

- (a) in terms of the National Service Act [*Chapter 11:08*];
or
- (b) in the Defence Forces, in terms of the Defence Act [*Chapter 11:02*]; or

- (c) in the Regular Force, in terms of the Police Act [*Chapter II:10*]; or
- (d) considered by the Authority to be equivalent to service, employment or training in terms of paragraph (a), (b) or (c);

he or she may have a period equal to such service, employment or training, or such lesser time as may be determined by the Authority, remitted from his or her apprenticeship in the final year.

(4) Subject to the approval of the Authority, an apprentice who is considered by his or her employer to be sufficiently advanced in his or her trade may enter for a competency test in the practice of his or her trade devised by the Authority.

(5) On the successful completion of a competency test referred to in subsection (4), an apprentice shall be granted remission of the period of his or her apprenticeship remaining, with effect from the day following the final day of the test.

(6) The Authority may determine, and revise from time to time, charge a fee specified in the Second Schedule to the apprentice to cover the cost of the competency test referred to in subsection (4).

Full-time technical training and examinations

7.(1) Subject to provisions of subsection (5), and unless otherwise directed by the Authority, every apprentice shall undergo full-time technical training which shall—

- (a) be preceded by an induction period of not more than six months during which the apprentice shall be tested for aptitude and made familiar with the industry; and
- (b) include attendance at an approved technical training institution on a course;
 - (i) approved by the Authority on the advice of the principal of that institution; and
 - (ii) lasting for two consecutive semesters.

(2) If the Authority considers that an apprentice is unsuitable for entry into the industry, it may cancel his or her contract of apprenticeship during the induction period specified in subsection (1).

(3) Subject to the approval of the Authority, acting on the advice of the, an apprentice shall undergo advanced training at a technical training institution.

(4) Where facilities for full-time class attendance to study for a prescribed occupation or designated trade subject do not exist, the Authority may prescribe other course of study as it deems appropriate in the circumstances.

(5) An apprentice who at the end of second semester fails to pass the final examination, shall undergo a theory statutory test equivalent to a year of training, to enable him or her to continue and complete apprenticeship training.

Practical training

8. (1) Every employer who employs an apprentice shall give the apprentice such practical training in the appropriate trade as is prescribed in the Third Schedule.

(2) The practical training referred to in subsection (1) shall be of such a nature and it shall be given to such an extent as will, in the opinion of the Authority, afford the apprentice a thorough grounding in the operations and processes normally carried out by any skilled worker in the trade concerned and afford the apprentice a satisfactory insight into the work of cognate trades.

(3) With the approval of the Authority, an employer may make arrangements for an apprentice to receive such practical training as is indicated in the Third Schedule which cannot be provided in the employer's establishment, or any approved supplementary training, in the establishment of another employer or in some other approved manner or in such other manner as the Authority may approve.

(4) During the course of his or her apprenticeship, an apprentice shall keep in a log book, in the format provided by the Authority, and certified by the apprentice, the employer and duly authorised official appointed by the Authority, a correct record of work undertaken, training received and the level of competency achieved in each skill at quarterly intervals.

Maximum number of apprentices

9. No employer shall employ more apprentices than skilled worker without the approval of the Authority.

Apprentices' tuition and examination fees

10. (1) The tuition fee for attendance at an approved vocational or technical training institution in terms of section 7 shall be paid on behalf of the apprentice concerned from the Fund.

(2) The examination fee in respect of any examination the apprentice is required to take in terms of section 7 shall be paid from the Fund.

(3) If an apprentice—

(a) attending an approved vocational or technical training institution—

(i) does not obtain a satisfactory report from the principal of the institution; or

(ii) has an unsatisfactory record of attendance at the institution; or

(iii) is withdrawn from the institution by the Authority; or

(iv) fails to pass the required examinations:

for any reason shall have his or her contract of apprenticeship rescinded by the Authority;

(b) the Authority may, in addition to rescinding his or her contract of apprenticeship, order that the tuition fee or any examination fee or both, as the case may be, be repaid by the apprentice in whole or in part to the Fund:

Provided that where the Authority is satisfied that the rescission of the contract of apprenticeship is attributable to circumstances which are beyond the apprentice's control, and which have not arisen as a result of any fault on the part of the apprentice or, if the apprentice is a minor, on the part of his or her guardian, the Authority shall not require the apprentice to repay any fee to the Fund.

Wages

11. (1) Subject to the provisions of this section, the minimum monthly rates of wages which shall be paid to an apprentice during the periods of his or her apprenticeship shall be those percentages specified in the Fourth Schedule of the minimum monthly rates of wages payable to a Skilled Worker under an industrial agreement.

(2) For the purpose of reckoning the weekly wage-rate of an apprentice, his or her monthly wage-rate shall be multiplied by twelve and divided by fifty-two.

(3) For the purpose of reckoning the hourly wage-rate of an apprentice, his or her weekly wage-rate shall be divided by the number of normal weekly hours which he or she is required to work in terms of section 15.

(4) For the purpose of reckoning the daily wage-rate of an apprentice, his or her hourly wage-rate shall be multiplied by the number of hours which he or she would normally work on the day in question in terms of section 16.

(5) During any period of full-time technical training or advanced technical training, and during any period of paid leave or paid sick-leave, the wages shall be at the rates provided for in subsection (1).

Additional remuneration

12. (1) For passing in examinations, an apprentice shall be granted increases as follows—

- (a) an increase of four cents per hour for obtaining a pass or higher level in the National Certificate, or an equivalent approved examination;
- (b) the increase referred to in subsection (1) shall be payable backdated from the day after the final day of the examination concerned, and shall continue for the remainder of the period of apprenticeship of the apprentice concerned.

(2) An increase of eight cents per hour for obtaining a pass or higher level in the National Diploma, or an equivalent approved examination—

- (a) where the two increases are the same, he or she shall receive one increase only;
- (b) where the two increases differ, and the higher increase would otherwise be payable as from an earlier date than the lower increase, he or she shall receive the higher increase only;
- (c) where the two increases differ, and the lower increase would otherwise be payable as from an earlier date than the higher increase, he or she shall receive only the lower increase until the date on which the higher increase would otherwise be payable, and, as from that date, a further increase, being the difference between the lower increase and the higher increase.

(3) The increases referred to in this section shall be payable backdated from the last day upon which the apprentice sat for the relevant examination, and payments shall be made on and from the first regular pay-day following the employer being notified of the examination success.

Deductions from wages

13. An employer may deduct from the wages of an apprentice amounts in respect of pension schemes, sick pay funds or any other like matter operated under the protection of the appropriate Employment Council or his or her employer and any other amount mutually agreed by the apprentice and his employer:

Provided that any deduction made in terms of this paragraph shall not exceed ten *per centum* of the gross wages of the apprentice, as repayment for the cost of supplying tools to the apprentice.

Payment of wages

14. (1) An employer shall pay the wages due to an apprentice in his or her employ not later than four days following the last working day upon which such wages become due and payable.

(2) When an apprentice is indentured to the Authority and when a contract of apprenticeship is assigned to the Authority, the

wages of such apprentice, including the wages payable during public holidays or during leave accrued in terms of section 17, shall be paid from the Fund:

Provided that the Fund shall discharge all the responsibilities of the Authority as employer in relation to leave accrued to an apprentice during periods of employment by the Authority when the contract of such apprentice is transferred to another employer. Where an apprentice is indentured to a government department and his or her wages are paid from funds voted by Parliament, such wages shall not be reimbursed from the Fund.

(3) In respect of any period of apprenticeship other than that provided for in subsection (2) the employer shall be responsible for the payment of an apprentice's normal wages, including the wages payable during public holidays or during leave accrued in terms of section 17, whenever such accrued leave is actually taken.

(4) The wages payable to an apprentice in respect of any period of paid leave taken by the apprentice shall be the normal wages which would have been payable for the same period had the apprentice not been on leave.

Medical-aid scheme

15. (1) Every apprentice shall participate in a medical aid scheme.

(2) Where the rules of a medical aid scheme require an employee to contribute towards such scheme, an apprentice shall not, for the duration of his or her apprenticeship, be required to pay more than fifty *per centum* of such contribution, the balance being paid by the employer.

Hours of work and overtime

16. (1) When an apprentice is required to attend an approved technical training-institution in terms of sections 6,7 and 8, he or she shall be present at such institution on the days and during the hours specified by the principal of the institution concerned.

(2) The normal hours of work of an apprentice shall be the number of hours worked by a skilled worker in the same trade in the establishment in which he or she is employed.

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(3) Time spent by an apprentice attending approved technical training at an institution shall be deemed to be time worked for purposes of payment of wages.

(4) An apprentice may be required to work paid overtime during apprenticeship:

Provided that no overtime shall be worked in excess of ten hours in any one week.

(5) When an apprentice is required to work for a total of sixteen hours or more during a period of twenty-four hours, the employer shall neither require nor permit the apprentice to resume work within a period of twelve hours from the termination of the said working period.

(6) Apprentices shall be paid for overtime at rates in accordance with the procedure appertaining to a Skilled Worker in the same trade in the same establishment.

(7) Subject to the provisions of subsection (4), an apprentice requested by his or her employer to work outside his normal working hours shall not, without good and sufficient reason, refuse a reasonable request to do so:

Provided that an employer shall give an apprentice not less than one hour's notice of the requirement to work overtime.

(8) If, during any one week, an apprentice is available and is able and willing to work and his or her employer fails to provide him or her with work to do, the employer shall pay the apprentice the rate of wage prescribed for the number of hours normally worked.

(9) An employer shall neither require nor permit an apprentice to work periods when the apprentice is required to attend technical education training.

Leave

17. (1) For the purposes of this section, "working day" means a day on which an apprentice is normally expected to work.

(2) Subject to the provisions of this section, apprentices shall be granted the paid public holidays, annual leave and sick leave—

- (a) which are prescribed in an industrial agreement or conditions of service; and
- (b) which would normally be granted to skilled worker employed in the same trade and in the same establishment; on the terms and conditions prescribed in such industrial agreement or conditions of service.

(3) An apprentice shall be granted one paid maternity leave during apprenticeship training. During that period training will be suspended.

(4) Where all or any of the matters described in subsection (1) are not prescribed in an industrial agreement or in the conditions of service applicable to skilled worker employed in the same trade and in the same establishment as an apprentice, such apprentice shall be granted paid holidays, annual leave and sick leave on the following conditions—

- (a) paid leave on all public holidays;
- (b) thirty days' paid leave during each year of apprenticeship;
- (c) an apprentice shall accumulate his leave to a maximum of ninety days;
- (d) leave shall be taken with the approval of the employer;
- (e) an apprentice shall be granted ninety days' sick-leave on full pay and a further ninety days sick-leave on half pay during each year of apprenticeship.

Provided that—

- (i) any absence of more than three consecutive days in duration shall be supported by a medical certificate;
- (ii) such leave shall not be accumulative;
- (iii) the reason for such leave shall not be occasioned by the apprentice's own fault or negligence.

(4) Notwithstanding any provisions contained in any industrial agreement or in the conditions of service applicable to Skilled Worker employed in the same trade in the same establishment, the annual leave

of apprentices shall accrue during any period of service prescribed in the National Service Act [*Chapter 11:08*], other than Phase 1 service as defined in that Act.

Outside work

18. (1) The terms and conditions relating to work undertaken by an apprentice outside the normal place of employment shall be the same as the conditions contained in an industrial agreement or in the conditions of service relating to a skilled worker in the same occupation or trade in the same establishment:

Provided that any employer who requires an apprentice to work outside his normal place of work for a period in excess of seven days, shall inform the Authority of such requirement.

(2) Where no industrial agreement or the conditions of service mentioned in subsection (1) is applicable, the following minimum conditions shall apply—

- (a) where an apprentice is required to work away from the employer's establishment or usual working place, necessitating travelling, the apprentice shall be provided with the necessary transport and accommodation by the employer;
- (b) where an apprentice is temporarily required by the employer to live away from his or her usual place of residence, board and lodging, including bed and meals whilst travelling, shall be paid by the employer;
- (c) in computing travelling time, no account shall be taken of time spent on any work prior to the commencement of the journey or after arrival at the place or destination, and such work shall be paid for at the ordinary hourly rate;
- (d) for each working hour spent by an apprentice in travelling, he or she shall be paid his current rate of normal pay;
- (e) for each hour outside ordinary working time spent by an apprentice in travelling, he or she shall be paid his or her current rate of normal pay;

Provided that an apprentice shall not be paid more than nine hours' travelling pay at normal rates, whether for time within or outside of ordinary hours, in any period of twenty-four hours of continuous travelling time, calculated from the commencement of a journey.

(3) In the case of an apprentice who travels in terms of subsection (2) on a—

- (a) Sundays, in the case of an apprentice working a six-day week;
- (b) Saturdays in the case of an apprentice working a five-day week; and
- (c) all paid holidays:

shall be regarded as ordinary working days for the computation of travelling pay.

Personal protective equipment

19. An apprentice shall be supplied by the employer, free of charge, such personal protective equipment as is appropriate to the designated trade.

Completion of apprenticeship in technician trades

20. An apprentice in any of the technician trades shall not complete his or her apprenticeship in that trade unless he or she passes National Diploma of the appropriate technician examination.

Practical trade test

21. (1) The Authority shall ensure that an apprentice is trade tested within six months before termination of contract.

(2) If the apprentice fails, the test or has not been trade tested for whatsoever reasons that contract must be extended for a period not more than one year with the same employer.

(3) Where an extension is granted a training programme shall be provided within two weeks of such extension.

(4) An apprentice shall be assessed and informed of any weaknesses at least three months before trade retest by way of a

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written report which must be signed by employer, apprentice and the Authority.

(5) The employer shall address the weaknesses before the retest.

(6) A contract shall only be cancelled for failure of a trade test upon exhaustion of the requirements specified in this section.

Fees

22. Application fees, administrative fees, registration fees and any other fees shall be as specified in the Second Schedule.

Compliance with regulations

23. Where an employer violates any of the stated provisions of this statutory instrument, the Authority may direct the employer to be prohibited from contracting apprentices.

FIRST SCHEDULE (*Section 4*)

DESIGNATION OF TRADES

Bio-medical Equipment mechanic
Bio-medical Equipment Technician
Orthopaedic Technician

SECOND SCHEDULE (*Section 6(6) and 22*)

Fees

Nature of Fee	Category	Approved Fees US\$ (Payable in ZWL\$)
Registration Fees Theory Paper	NFC and class 4	8
	NC and class 3	12
	ND and class 2	15
	HND and class 1	18
Registration Fees Practical Paper	NFC	12
	NC	15

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Nature of Fee	Category	Approved Fees US\$ (Payable in ZWL\$)
	ND	18
	HND	20
	Class 4	20
	Class 3	30
	Class 2	40
	Class 1	50
Registration fees Project	NFC	-
	NC	18
	ND	20
	HND	25
Registration fees on the Job Training	NC	15
	ND	18
	HND	20
Administration fees	NFC and class 4	10
	NC and class 3	25
	ND and class 2	25
	HND and class 1	25
Centre fee	NFC and class 4	10
	NC and class 3	20
	ND and class 2	20
	HND and class 1	20
Re-mark of HEXCO Examinations		
(a) Theory per subject	NFC and class 4	50
	NC and class 3	50
	ND and class 2	60
	HND and class 1	60

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Nature of Fee	Category	Approved Fees US\$ (Payable in ZWL\$)
Practical or project per subject	NFC	75
	NC	100
	ND	130
	HND	160
(b) Processing and sundries per script/practical/project		65
Sales and Services		
Registration of Contract		5
Clearance letter		5
Statutory test		25
Duplicate Contract of apprenticeship (Replacement)		25
Duplicate Contract of Apprenticeship (Regions)		25
Competency test for remission of Time/Trade Test		50
Terminal Re-Test on Failed Components		50
Training Logbook		2
Re-registration of Contract of Apprenticeship		25
Changing names on certificates		120
Interview fees for special Scheme		5
Issue of Statement of Results		10
Urgent Statement of Results		20
Transcript		40
Urgent transcript		80
Qualification Confirmation		40
Urgent Qualification Confirmation		80
Search Fee (Non Refundable) for none-current records		5
Course Regulations (per course)		10

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Omnibus course document		50
Proficiency Schedule		10
Standard		10
College Inspectorate		
Registration of College (to cover initial license)		500
Renewal of annual license (annual renewal)		500
Regularisation of College (for unregistered College)		750
Follow up inspection (after initial visit)		250
Additional Course (per course) registration		100
<i>Qualification Assessment/ Exemption and Accreditations</i>		
Exemption per course		75
Exemption per subject		20
Qualification Assessment (local)		50
Qualification Assessment (foreign)		75
Accreditation of college course		1000

Note: The fees set out in this Schedule may be in Zimbabwean Dollars at the official market rate.

THIRD SCHEDULE (*Section 8*)

PRACTICAL TRAINING SCHEDULES

BIO-MEDICAL EQUIPMENT MECHANIC

By the end of the training program, an apprentice should be able to demonstrate skills and knowledge of—

1. Health and safety

- 1.1 Personal Protective Equipment PPE
- 1.2 Basic first aid

- 1.3 House keeping
- 1.4 Workshop rules
- 2. Tools and equipment**
 - 2.1 Diagnostic
 - 2.2 Therapeutic
 - 2.3 Curative
 - 2.4 Testing equipment
 - 2.5 Analysing equipment
 - 2.6 Calibration equipment
 - 2.7 Simulation equipment
- 3. Equipment repairing**
 - 3.1 Troubleshooting Techniques
 - 3.2 Circuit Diagrams/Schematic Drawings
- 4. Regulations**
 - 4.1 Standard Operating Procedures (SOPs)
 - 4.2 MCAs
 - 4.3 WHO Guidelines
 - 4.4 FDA
 - 4.5 EUMDR
- 5. Equipment installation**
 - 5.1 Site inspection
 - 5.2 Booking out
 - 5.3 Accessories
 - 5.4 Equipment handling
 - 5.5 Assembling
 - 5.6 Equipment/systems specifications
 - 5.7 System parameters
 - 5.8 Testing methods
 - 5.9 Stake holders

6. Medical equipment maintenance

- 6.1 Planned/Scheduled/Preventive Maintenance
- 6.1 Corrective/Unplanned/Unscheduled Maintenance
- 6.2 Cleaning materials
- 6.3 Lubricants

7. Equipment de-installation

- 7.1 Resource mobilization
- 7.2 Dismantling methods
- 7.3 Site clearance
- 7.4 Recording
- 7.5 Equipment preservation

8. Small bore pipe-fitting

- 8.1 Cable termination techniques
- 8.2 Cable sizing
- 8.3 Colour coding standards

9. Simple pneumatic, hydraulic and electrical installations

- 9.1 Assembling

10. Pneumatic and electrical test equipment

- 10.1 Fault finding techniques
- 10.2 Pneumatic and electrical testing

11. User training

- 11.1 Training needs
- 11.2 Training materials
- 11.3 Scheduling
- 11.3 Presentation methods

12. Calibration

- 12.1 Calibration methods
- 12.2 Calibration kit
- 12.3 Calibration procedures

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13. Drawing

- 13.1 Schematics
- 13.2 Plan reading
- 13.3 Drawing software

14. Communication

- 14.1 Memos
- 14.2 Reports
- 14.3 Data sheets
- 14.4 Emails
- 14.5 Meetings
- 14.6 Communication channels

15. Medical gases

- 15.1 Colour coding
- 15.2 Regulators
- 15.3 Probe types

16. Documentation

- 16.1 Inventory
- 16.2 Job cards
- 16.3 Manuals
- 16.4 Statutes
- 16.4 SOPs
- 16.5 Work plans
- 16.6 Reports

BIO-MEDICAL EQUIPMENT TECHNICIAN

By the end of the training program, an apprentice should be able to demonstrate skills and knowledge of—

1. Safety

- 1.1 Codes and guidelines.

- 1.2 Housekeeping.
- 1.3 Electrical and electronic work.
- 1.4 Noxious and flammable gases, hot metals, liquids, gases and pressure.
- 1.5 Risk assessment
- 1.6 Accident Prevention and Protection of Machinery
 - 1.6.1 Machine tools.
 - 1.6.2 Hand tools, portable tools and workshop equipment.
 - 1.6.4 Procedures and safe practices when working with DC and AC electrical circuits and devices.
- 1.7 Personal Protective Equipment
 - 1.7.1 Safety equipment
- 2. Quality control management systems**
 - 2.1 ISO standards
 - 2.2 Quality process and procedures—Standard Operating Procedures (SOPs).
 - 2.3 Performance reports.
 - 2.4 Performance assurance.
 - 2.5 Operation verification procedure
- 3. Regulations**
 - 3.1 Regulatory agency compliance.
 - 3.2 Policies and procedures.
 - 3.3 Safety standards.
 - 3.4 World Health Organisation (WHO) guidelines
- 4. Designing**
 - 4.1 Circuit design and software simulation tools.
 - 4.2 Fabrication.
 - 4.3 Schematic designs.
 - 4.4 Embedded electronics.
- 5. Medical equipment/systems maintenance**
 - 5.1 Medical equipments/systems

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- 5.2 Maintenance documents
- 5.3 Service history
- 5.4 Maintenance contracts
- 5.5 Serviceable components
- 5.6 Equipment/systems software
- 5.7 Medical equipment calibration
- 5.8 Safety checks on medical equipment
- 6. Medical equipment/systems repairing**
 - 6.1 Standard Operation Procedure.
 - 6.2 Job cards
 - 6.3 Advanced Testing equipment
 - 6.4 Troubleshooting
 - 6.5 Replacement and testing
- 7. Medical equipment/systems installation**
 - 7.1 Site inspection
 - 7.2 Assembling
 - 7.3 Alignment
 - 7.4 Programming
 - 7.5 Adjustment
 - 7.6 Calibration
 - 7.7 Acceptance certification
 - 7.8 Commissioning
- 8. Medical equipment/systems administration and communication**
 - 8.1 Inventory management systems.
 - 8.2 Data – manual and electronic records.
 - 8.3 Stocktaking procedure
 - 8.4 Needs analysis.
 - 8.5 Budget.
 - 8.6 Tender documents

- 8.7 Equipment conformity and compliance
- 8.8 Modes of communication
- 8.9 Reports

9. User training

- 9.1 Training needs
- 9.2 Training materials
- 9.3 Training reports.
- 9.4 Outsourcing trainings

10. Medical equipment/systems decommissioning

- 10.1 Stakeholders
- 10.2 Resources
- 10.3 Dismantling methods
- 10.4 Decommissioning certification

ORTHOPAEDIC TECHNICIAN

By the end of training period the apprentice should be able to demonstrate skills and knowledge of—

1. Safety and Health

- 1.1 Personal protective equipment
- 1.2 Handling and care of tools and equipment
- 1.3 Basic First Aid
- 1.4 Unsafe acts unsafe conditions

2. Regulations

- 2.1 Health Services Regulations, 2006 Statutory Instrument 117 of 2006
- 2.2 Health Professions Act [*Chapter 27: 19*]
- 2.3 Orthopaedic Professionals Conduct Regulations

3. Patients consultation

- 3.1 Patient registrations
- 3.2 Patient observation

- 3.3 Nature of disability and causes
- 3.4 Recording health history
- 3.5 Patient advise
- 3.6 Service types
- 3.7 Patient reference

4. Clinical examinations

- 4.1 Medical records interpretation
- 4.2 Affected area observation
- 4.3 Affected area palpation
- 4.4 Patient feedback
- 4.5 Degree of impairment determination
- 4.6 Body segment readiness for next procedure
- 4.7 Clinical diagnosis summation
- 4.8 Patient physiological status
- 4.9 Neurological imbalances
- 4.10 Range of motion
- 4.11 Findings
- 4.12 Information validation methods

5. Counselling

- 5.1 Conducive environment
- 5.2 Patient motivation
- 5.3 Patient education
- 5.4 Device use demonstration
- 5.5 Patient and device care education
- 5.6 Payment options
- 5.7 Device review

6. Prescribing medical devices

- 6.1 Patient background information
- 6.2 Components

- 6.3 Components costing
- 6.4 Materials
- 6.5 Segment suspension system
- 6.6 Assistive devices
- 6.7 Prescription presentation
- 6.8 Treatment time frame

7. Designing medical appliances

- 7.1 Patient's condition analysis
- 7.2 Selecting templates
- 7.3 Applying templates
- 7.4 Producing graphic images
- 7.5 Body segmentation analysis
- 7.6 Prototype production
- 7.7 Prototype testing
- 7.8 Orthotics tracing production
- 7.9 Segment measurement

8. Fabricating Medical Devices

- 8.1 Cast procedures
- 8.2 Producing positive casts
- 8.3 Positive casts modification
- 8.4 Socket lamination
- 8.5 Components assembling
- 8.6 Bench alignment
- 8.7 Dynamic alignment

9. Fitting medical devices

- 9.1 Asymmetry assessment
- 9.2 Pressure testing bonny prominence
- 9.3 Device compatibility checking
- 9.4 Proportional weight distribution

- 9.5 Temperature comparisons conduction
- 9.6 Patient don and doff device assessment
- 9.7 Skin discoloration checking
- 9.8 Suspension system effectiveness
- 9.9 Adjustments performance

10. Device user training

- 10.1 Standing on device demonstration
- 10.2 Assistive device use demonstration
- 10.3 Device functionality and comfort checking
- 10.4 Body posture alignment demonstration
- 10.5 Gait training
- 10.6 Patient gait deviation analysis
- 10.7 Squatting posture illustration

11. Patient discharge

- 11.1 Clinics conduction
- 11.2 Systems functionality testing
- 11.3 Immovable joints lock tightening
- 11.4 Myo load systems
- 11.5 Laser beam configuration
- 11.6 Cosmetic covers sealing
- 11.7 Patient feedback
- 11.8 Job cards
- 11.9 Post service care

12. Professional Development

- 12.1 Related literature review
- 12.2 Short courses enrolment
- 12.3 Examinations writing
- 12.4 Professional Association subscriptions
- 12.5 Workshop and seminars

12.6 Exchange programmes

12.7 Research

FOURTH SCHEDULE (*Section 11*)

MINIMUM RATES OF WAGES FOR APPRENTICES

Percentage of the monthly minimum wage for Skilled Worker Class One wage rate as stipulated in the Collective Bargaining Agreement: Bio-medical Engineering Industry

<i>Year of training</i>	<i>Per centum</i>
First	30
Second	45
Third	60
Fourth	87

*Supplement to the Zimbabwean Government Gazette dated the 28th July, 2023.
Printed by the Government Printer, Harare.*