TVET Standard — National Polytechnics — Requirements and Guidelines

First Edition, 2019

TECHNICAL COMMITTEE REPRESENTATION

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REVISION OF TVET STANDARDS

In order to keep abreast of progress in industry, TVET Standards shall be regularly reviewed. Suggestions for improvements to published standards, addressed to the Director General, Technical and Vocational Education and Training Authority are welcome.

TVET Standard — National Polytechnics — Requirements and Guidelines

TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING AUTHORITY (TVETA)

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TVETS 04:2019

Foreword

Development of the Technical and Vocational Education and Training (TVET) Standards has been necessitated by the need for establishing requirements governing quality of training services in the TVET Sector. It is envisaged that through standardization, service delivery disparities that are encountered when services are rendered within the TVET sector will be removed.

Technical and Vocational Education and Training Authority (TVETA) has established a Technical Standards Committee mandated to develop standards through consultations with stakeholders and Kenya Bureau of Standards (KEBS). The Committee is composed of representatives from the TVETA standards department, public and private sector organizations in the TVET sector.

TVET Standards are developed through a Technical Committee that in consultation with key stakeholders representing government, regulatory and Professional bodies, Curricula development and Assessment agencies, academia, consumer groups, public and private colleges, universities and other interested parties.

Draft TVET Standards are circulated to stakeholders. The comments received are discussed and incorporated before finalization of the standards, in accordance with the Principles and procedures for development of Company Standards. Once finalized, the public are then notified through Government gazette.

TVET Standards are subject to review from time to time. Users of the TVET Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

Attention is drawn to the possibility that some of the elements of this document may be subject to patent rights. TVETA shall not be held responsible for identifying any or all such patent rights.

This standard prescribes requirements and guidelines for national polytechnics in Kenya in the following areas.

a) Leadership and Management
b) Physical Resources
c) CBET Programmes
d) Library Services and Facilities

During the development of this standard, reference was made to the following documents:

TVET Act 2013.
TVET Regulations 2015.
Commission for University Education Universities Standards and Guidelines, 2014.
DTAQA TIVET Standards and Guidelines – 2011.

Acknowledged is hereby made for the assistance derived from these sources.

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TVET Standard — National Polytechnics — Requirements and Guidelines

1   Scope

This TVET Standard prescribes requirements and guidelines for national polytechnics in Kenya in the following areas.

   a) Leadership and Management
   b) Physical Resources
   c) CBET Programmes
   d) Library Services and Facilities

2   Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

TVET Act 2013
TVETS 03:2019, CBET Trainers Qualification Framework
Kenya National Qualification Framework (KNQF)
The Building Code of the Republic of Kenya
Kenya National Qualification Framework (KNQF)
TVETS 01:2019, TVET Standard — Competence-Based Education, Training and Assessment (CBETA) — Requirements

3   Terms and definitions

For the purposes of this document, the following term and definition apply.

3.1
National Polytechnic
an institution declared a National Polytechnic in accordance with TVET Act 2013

3.2
recognized water laboratory
a laboratory registered with or belonging to the Public Health Department of the Ministry of Health, Ministry responsible for Water and Sanitation or any other public institution, person or organization duly authorized by the Government of Kenya to undertake water analysis

3.3
adequate
sufficient in relation to any set national guidelines or requirements

3.4
adequate water supply
water in such quantities as would permit maintenance of a reasonable level of personal and environmental, sanitation, hygiene and other training needs

3.5
building code of the Republic of Kenya
the Local Government (Adoptive By-laws), County by-laws, (Building) Order, 1968 and the Local Government (Adoptive By-laws) (Grade II Building) Order, 1968;

3.6
departmental areas
offices occupied by teaching and administrative staff of a teaching department

3.7
physical facilities
any structure fixed or movable or of whatever kind and any part thereof used or intended to be used for teaching/training, or instruction or as a dwelling house or for recreational and all auxiliary facilities thereto including drainage works, services installations and road works

3.8
relevant local authority
a county Government, city or municipal council or such local authority under whose jurisdiction a National Polytechnic is situated

3.9
residential national polytechnic
a National Polytechnic in which at least 25% of the total trainee population reside

3.10
sewage
waste effluent from toilets and latrines

3.11
trainee
a person enrolled to pursue an approved TVET programme

3.12
site works
a place where construction activities are carried out

3.13
surface water
any ground water, subsoil water, storm water or rain water which discharges on the ground surface;

3.14
utility services
any service that is connected to any building or living space through pipe or wire network for helping to convey fluids, energy and messages, in and out of any building or living space

3.15
waste water
any water discharged after a variety of uses and which constitutes a combination of liquid and water carried wastes, emanating from residences, toilets, kitchens, laundries, laboratories and workshops

3.16
Competence Based Education and Training (CBET)
an approach that emphasizes on acquiring competence through providing the trainees with knowledge, skills and attitudes required for workplace

3.17
accreditation
the process by which the Board formally recognizes and confirms by certification that an institution has met and continues to meet the standards of academic, training and competence excellence set by the Board in accordance with the provisions of the Act

3.18
authority
the Technical and Vocational Educational and Training Authority established under Section 6 of the Act

3.19
board
the Technical and Vocational Education and Training Board established under Section 8 of the Act

3.20
certificate
the level of qualification below diploma or its equivalent

3.21
course
the programme of instruction comprising a range of syllabus content areas for trainees to acquire knowledge, work attitudes, skills and competences for employment in formal or informal sectors

3.22
curriculum
the programme of courses fulfilling the requirements for a certificate or diploma in a particular field of study

3.23
diploma
the level of qualification below degree and above a certificate

3.24
institution
an entity that promotes or offers technical and vocational education and training

3.25
programme
a sequential grouping of courses which forms a considerable part, or all, of the requirements for an academic credential or an occupational objective

3.26
public institution
an institution established or maintained by use of public funds or by the community

3.27
quality assurance
the procedures, processes and systems used to guarantee and continuously improve the training standards of a TVET institution

3.28
training
includes technical and vocational education and training leading to acquisition of specialized skills and knowledge that can provide the practitioner with livelihood

4 Leadership and Management

4.1.1 A national polytechnic shall

a) have clear organizational and administrative structure showing the inter- relationships of the various organs and offices;
b) have documented policies that include but not limited to human resources management, research, ICT, disability, gender mainstreaming, curriculum development, TVET integrity and Internal Quality Assurance; and
c) develop statutes, rules and regulations for its management in line with the TVET Act 2013.

These shall include:
i. Trainee conduct and discipline;
ii. Staff code of conduct;
iii. Terms and Conditions of service of staff; and
iv. Trainee handbook containing, but not limited to, admission requirements, fees guideline.

4.1.2 National Polytechnic Council

Establishment of Public National Polytechnic Council shall be in accordance with TVET Act 2013.

4.1.3 Human Resources Management

National Polytechnic shall have adequate and competent human resources to carry out its mandate in accordance to its human resource policy.

4.1.3.1 The number of staff shall be dependent on the institution's approved staff establishment.

4.1.3.2 Training staff of National Polytechnic shall meet the qualification outlined in the TVETS 03:2019.

4.1.3.3 The administrative staff of National Polytechnic shall have requisite qualification in their areas of operation;

4.1.3.4 Every National Polytechnic shall clearly articulate its appointment criteria in accordance to Table 1.

NOTE   The Principal/CEO/Director or equivalent of the National Polytechnic shall be a person appropriately qualified with extensive training, administrative and research experience.

Table 1 — Minimum Criteria for Appointment of Training Staff

S/N	Function	Tasks	Requirements
1.	Technical Instructor	1. Supervises Work-Based Learning 2. Conducts pre-scribed Competency Assessment 3. Maintains Training Facilities 4. Utilizes readily prepared professional notes in facilitating training 5. Ensures gender sensitivity and equality in workshop participation	KNQF level 5 in the technical/vocational domain (Craft) + certificate of an approved ToT for Technical Instructors
2.	Trainer	1. 1s a professional and keeps his professionalism up to date 2. Organises a good mix of class-room learning and practicals	KNQF level 7 in the technical/vocational domain (Bachelor)

S/N	Function	Tasks	Requirements
		3. Administers/ conducts a training programme 4. Utilises electronic media in facilitating learning. 5. Provides advice and support learners in their learning career 6. The trainer is actively involved in training on the job/ in the actual practice of the workplace 7. Assesses trainee's competencies. 8. Ensures internal quality control 9. Can act as an entrepreneur and transfer these skills to his/her trainees. 10. Ensures gender sensitivity and equality in classroom participation	+certificate of an approved ToT for Trainers
3.	Principal Trainer/Developer	Those of the trainer plus: 1. Facilitates development of competency standards 2. Conducts Training Needs Analysis 3. Designs and conducts research in education and training in her/his domain 4. Develops/adapts a training curriculum 5. Develops/ adapts learning materials 6. Develops/ adapts assessment tools Develops/ adapts learning materials for e-learning 7. Uses and evaluates assessment instrument 8. Analyses difference in tasks, roles and positions of female and male participants in school and their working situation and takes this into consideration when developing the curriculum material and in his/her training	KNQF level 9 in the technical/ vocational domain and/or experience as trainer (minimum 4 years) + certificate of an approved TVET (curriculum) development training
4.	Principal Trainer/Manager	Those of the trainer plus: 1. Prepare and manage training budgets 2. Leads a team in a TVET centre 3. Coordinates research projects in education and training in the domain of the team 4. Manages attachments contracts for trainees 5. Provides training for workplace instructors and trainers 6. Manages HR of the team 7. Promotes, advocates and strengthens industry and TVET linkages 8. Designs and develops maintenance system of training facilities 9. Ensures gender sensitivity and equality in the team and stimulates active participation of all team members.	KNQF level 9 in the technical/ vocational domain and/or experience as trainer (minimum 4 years) + certificate of an approved TVET management training programme
5.	Deputy Directors	Those of the principal Trainer/Manager plus 1. Leads an Academic Department 2. plans, implements and coordinates training programmes 3. Coordinates the development and implementation of curricula, training programmes and/or courses	Experience as a Principal Trainer/ Developer or trainer/ manager (minimum 4 years)

S/N	Function	Tasks	Requirements
		4. Develops and maintains academic quality standards and policies 5. Coordinates academic programs and support operations 6. Coordinates the allocation of instructional and research funds and other resources 7. Establishes policy on faculty appointment, evaluation, promotion and tenure 8. Assures Overall training and development of staff in the Division 9. Coordinates internal quality assurance in the department 10. Can act as an entrepreneur and transfer these skills to his/her colleagues in the department 11. Ensures gender sensitivity and equality in the department and stimulates active participation of all team members	
6.	Director	1. Coordinates the planning and implementation of training programmes for national needs in line with the Constitution, MDGs, Vision 2030 and other relevant provisions 2. Initiates, coordinates and implements TVET training policy 3. Coordinates the Institute's overall development projects 4. Ensures effective mobilization and utilization of human, financial and physical resources in the Institute 5. Plans, coordinates and reviews staff development and training programmes 6. Establishes collaborations and linkages with other Institutions, enterprises and stakeholders 7. Oversees overall trainee welfare 8. Oversees overall staff welfare in the Institute 9. Ensures effective interpretation and implementation of relevant government policies 10. Implements and coordinates the institutions quality assurance policy 11. Acts as an entrepreneur and transfer these skills to his/her staff 12. Ensures gender sensitivity and equality in the Institution and stimulates active participation of all team members	Experience as a Principal Trainer/ Manager (minimum 4 years)

4.1.4 A National Polytechnic shall have Vision, Mission statements and Core Values which clearly indicate its strategic direction in accordance with Annex A.

4.2 Accreditation

4.2.1 The National Polytechnic shall have full accreditation in Kenya. Each shall have a registration certificate and license as legal instruments of accreditation that authorizes the institution to discharge its mandate.

NOTE   The accreditation status may be attained after at least three years of operating as any other lower TVET Categories status recognized by the Authority.

4.2.2 The number trainees enrolled in Diploma programmes in an accredited National Polytechnic shall not be less than 70% of the total trainee enrolment.

4.3   Training Programmes

4.3.1 National Polytechnic shall offer programmes that are commensurate with its institutional accreditation status and that meet the requirements for TVET CBET Programmes.

4.3.2 A proposed National Polytechnic shall:

a) submit a maximum of four self-developed TVET CBET Programmes to the Authority for consideration for accreditation; and
b) not launch any programme until it becomes a legal entity through a legal order.

4.3.3 A Centre of excellence shall offer programmes deemed to be of national strategic importance.

4.4   Financial Resources

4.4.1   General

The National Polytechnic shall have adequate financial resources to meet its obligations.

4.4.2   Financial Management

4.4.2.1 Activities and work plans shall be supported by budget and audited accounts for the last three years to assess financial viability. Where an institution has just been established, projections shall suffice.

4.4.2.2 In determining the adequacy of the institution's financial resources, reference will be made to the differentiated unit cost.

4.4.2.3 National Polytechnic shall manage its financial resources as appropriate.

4.5   Planning

4.5.1 National Polytechnic shall show evidence of long and medium term plans to ensure sustainability and continuous improvement.

4.5.2 National Polytechnic shall:

a) have at least a 10-year Master Plan outlining its training programmes, financial and human development;
b) have a physical Master plan that indicates the location of existing and proposed physical infrastructure; and
c) have at least a 5-year strategic plan that outlines its overall development including, but not limited to, TVET CBET Programmes, physical facilities, trainee enrolment, staff and staff development, ICT Research and Community Service.

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4.6 Trainee Services

4.6.1 National Polytechnic shall provide trainee services that are commensurate with the trainee population.

4.6.2 The trainee services shall include but not limited to co-curricular facilities, counselling services, dispensary, space for worship and trainee canteen.

4.6.3 There shall be clear memoranda of agreement on hired or outsourced trainee services.

4.7 Quality of Training

4.7.1 National Polytechnic shall provide quality training and learning. This shall be demonstrated by:

a) Variety of delivery modes and methods that promotes creativity and critical thinking in learning; and
b) Lifelong learning through provision of adult and continuing education.

4.7.2 TVET staff shall keep abreast with the following:

a) Current trends in their disciplines.
b) Latest technologies of training and learning.

4.7.3 TVET staff shall avail themselves for consultation, guidance and mentoring of trainees.

4.7.4 Each National Polytechnic shall adapt international/national quality management system to assure internal quality.

4.8 Research, Innovations and Partnerships

4.8.1 National Polytechnic shall show evidence of promoting quality research, innovation and partnerships.

4.8.2 National Polytechnic shall:

a) Have thematic research areas in line with its institutional research policy and aligned to the national research policy;
b) Endeavour to have adequate funds for research by allocating a minimum of 2% of its operational budget to research;
c) Facilitate its staff to carry out research;
d) Have a mechanism of providing incentives to members of staff who undertake research, attract research funds, innovate and/or patent;
e) Be taken into account when determining TVET staff workload; and
f) Document and disseminate its research outputs.

4.9 Community Service

4.9.1 National Polytechnic shall engage in community outreach that promote cultural and socio-economic life of the society.

4.9.2 National Polytechnic:

a) Shall engage in community service, which may include but not be limited to, extension, consultancies, public trainings, corporate social investment, environmental conservation and promotion of cultural and socio-economic life of the society; and
b) Disseminate outcomes of research to the community.

5 Physical Resources

Physical Resources shall apply to:

a) All buildings or parts of buildings purposely designed and constructed for use;
b) Any alterations and extensions of buildings or parts of the buildings;
c) All buildings undergoing material change of use into National Polytechnic buildings;
d) All related utility services installations, and site works; and
e) The surrounding environment.

5.1 Facilities

5.1.1 Every National Polytechnic shall provide appropriate and adequate facilities to cater for the number of programmes on offer and trainees' enrolment.

5.1.2 As a minimum, National Polytechnic shall provide the following facilities:

a) Theory rooms;
b) Departmental areas, staff offices and seminar rooms;
c) Central administration offices;
d) Library;
e) Auditorium;
f) Staff common rooms;
g) Trainee common rooms with indoor recreation facilities;
h) Outdoor recreation facilities in form of games or sports facilities;
i) Drainage system, proper sanitation and water supply;
j) Health unit;
k) ICT infrastructure; and
l) Spaces of worship.

5.1.3 In addition to the facilities provided in 5.1.2 a residential National Polytechnic shall provide:

a) Kitchen and dining facilities;
b) Trainee accommodation, including adequate laundry and storage facilities.

NOTE   At the grant of Legal Order, a National Polytechnic should have facilities that can accommodate the projected trainee population at least for the initial programmes on offer.

5.2 Surrounding Environment

5.2.1 National Polytechnic facilities shall not be located in:

a) Environments that could be injurious to the health of trainees, including but not limited to, factories, dumping sites, and quarries;
b) Environments that can be a distraction to learning, including but are not limited to, bars, night clubs, casinos, and brothels;
c) Environments whose noise levels are an impediment to learning, including but are not limited to, airports, bus parks and markets.

5.3 Accessibility

5.3.1 National Polytechnic shall be easily accessible.

5.3.2 National polytechnics shall:

a) ensure that it is accessible through motorable access road;
b) maintain proper and adequate directional signage in all its facilities as to assure ease of movement in all areas.

5.4   Land Requirements

5.4.1   National Polytechnic shall own adequate land upon which it shall be situated.

5.4.2   National Polytechnic, (offering face to face/residential programmes), shall:

a) own land capable of supporting a trainee population of at least 375 and for purposes of this clause the land area required shall be at least 5 acres;
b) Show evidence of owning land on freehold or leasehold term of not less than 20 years at the time of grant of Legal Order.
c) Own land free from all encumbrances other than those of statutory nature;
d) Own land vested in the council of a National Polytechnic or trusteeship of a National Polytechnic with Legal Order which shall own such land as non-profit making bodies and in perpetual succession;
e) Be built on land parcels which are either a continuous holding or on land parcels that are contiguous to one another or in close proximity to each other;

NOTE   In all cases where land parcels are not contiguous to one another, they shall, in cases where the trainee population does not exceed 375, be situated at a distance not exceeding two kilometres from one another and be connected by a motorable road.

f) Set aside land for other functional areas of the institution:

   i.   The minimum total area set aside for open space and car park shall not be less than 1 acre which area shall not incorporate land set aside for sporting facilities; and
   ii. At least 1 acre of land for outdoor sports for the first 375 trainees.

g) Have a land Master Plan to guide land use at the institution; and
h) The physical master plan shall be designed in such a way that all building facilities and proposed developments are functionally related and compatible - all academic buildings, theory rooms, libraries, laboratories, assembly halls, auditoriums, audiovisual centres and other facilities are in close proximity to one another;

5.5   Land Master Plan

5.5.1 The master plan shall indicate:

a) The location of the existing and proposed National Polytechnic buildings;
b) The layout of all roads and pathways serving all buildings, which shall be such that the health and safety of the occupants and user of the National Polytechnic is not endangered;
c) The layout of all waste and soil drain pipes, sewers, culverts, septic tanks, storm water drains, and run-off catchment drains so laid that the health and safety of all occupants and users of the National Polytechnic is not endangered;
d) The location of all areas to be used by all other activities related to the National Polytechnic such as sports fields, farms, forests, arboreta and sewage treatment; and
e) The layout of all telephone and electricity service lines shall be laid in a safe manner.

5.6   Conformance to Statutory Requirements

5.6.1   Every building used or intended to be used as part of the National Polytechnic physical facility shall conform to statutory requirements.

5.6.2   National Polytechnic premises shall meet minimum requirements for health and safety of the public as prescribed by the relevant laws and by-laws and the requirements prescribed in the reference.

5.6.3   Any building designed and constructed for use as National Polytechnic building shall be approved by the respective county authorities.

5.6.4   Buildings and other physical facilities used by National Polytechnic shall have:

   a) Approved architectural and structural drawings;
   b) Approval for alterations or extensions, if any;
   c) Approval of proposed change of user, if any;
   d) Certificate of occupation for the newly constructed or altered buildings;
   e) Impact Assessment certificate by National Environment Management Authority;
   f) Any other statutory approval as may be required.

5.7   Safety of Facilities

5.7.1   Every National Polytechnic shall operate in facilities and structures that are safe for use.

5.7.2   All national polytechnic buildings shall:

   a) be serviceable and functional;
   b) be kept in a good state of repair and maintenance;
   c) be free from structural failures, excessive deflection, cracking or dilapidation of building material fabric and components;
   d) be secure for users from such hazards as falling, slipping, tripping; and
   have in place mechanisms to minimize or avoid security risks associated with users.

5.8   Public Safety

National polytechnic buildings of the types listed in Annex C shall follow the public safety requirements.

5.9   Access by Persons Living with Disability

5.9.1   All buildings used for National Polytechnic activities shall have adequate provisions to cater for Persons Living with Disability (PLWD).

5.9.2   Buildings for national polytechnics shall have provision for:

   a) a ramp, a lift or other means as appropriate to enable access to the facilities by PLWDs; and
   b) washrooms with appropriate adaptations for PLWDs in accordance with the Building Code.

5.10   Fire Safety

5.10.1   All buildings and other physical facilities for use by National Polytechnic shall have provisions for adequate fire safety, including but not limited to, statutory requirements, other standard practices with regard to fire resistance, means of fire escape, access for fire escape and fire - fighting equipment.

5.10.2   National Polytechnic buildings shall:

a)   Have fire escape routes that are properly labelled, maintained and kept free from any obstruction;
b)   Have sufficiently large doors that open outwards for ease of escape in large rooms;
c)   Have two separate doors for large theory rooms/halls.

5.10.3   The guidelines given for Building Groups (I), (III) and (III and (VI) shall be adhered to.

5.10.4   There shall be provision for adequate and appropriately placed fire-fighting equipment such as hose reels, portable fire extinguishers, fire blankets, dry risers, fire hydrants, sprinkles, and water storage tanks in every building.

5.10.5   A fire emergency call numbers, known to fire marshals shall be visibly placed in all public spaces.

5.10.6   National polytechnics shall have adequately trained fire marshals.

5.10.7   There shall be regular fire drills to assess levels of preparedness.

5.10.8   All national polytechnic buildings shall have provisions for fire safety signages, rules and assembly points. Fire assembly points shall be clearly labelled.

5.10.9   The National Polytechnic shall be provided with a water supply system for fire-fighting and the water for emergency fire-fighting purposes shall be drawn through the main water supply distribution system via a series of underground hydrants located at regular intervals throughout the site of the National Polytechnic.

5.11   Public Health

5.11.1 A National Polytechnic shall provide and maintain a clean, adequate and suitable sanitary conveniences, conforming to statutory requirements for trainees, staff and visitors.

5.11.2 Where trainees or other persons of both gender are accommodated or are expected to be accommodated the conveniences shall afford proper separate facilities for persons of each gender.

5.11.3   In a day National Polytechnic, the following well lit and ventilated closets, urinals, wash hand basins and drinking water fountains shall be provided for the initial enrolment of 1000 trainees:

a)   One W.C / pit latrine for every 20 female trainees;
b)   One W.C / pit latrine for every 25 male trainees;
c)   One W.C /pit latrine for every 20 female staff;
d)   One W.C/ pit latrine for every 25 male staff;
e)   One urinal stall for every 25 male trainees;
f)   One hand wash basin for every 20 trainees;
g)   One drinking water fountain for every 20 users;
h)   A sanitary disposal facility in every water closet for female users.

5.11.4   In a residential National Polytechnic, the following well lit and ventilated closets, urinals, wash hand basins, bathrooms and drinking water fountain shall be provided:

a)   One W.C. per every 15 male trainees;
b)   One W.C per every 10 female trainees;
c)   One urinal per every 10 trainees;
d)   One hand wash basin per every 10 trainees;
e)   One bath or shower per every 10 male trainees;
f)   One bath or shower per every 8 female trainees;

g) One drinking water fountain for every 20 trainees;

h) A sanitary disposal facility in every water closet for female users.

NOTE   Any enrolment above 1000 trainees shall require one extra facility in each case for every additional 50:40 trainees for males and females respectively.

5.12   Theory Rooms and Offices

5.12.1   Theory rooms

5.12.1.1. National Polytechnic shall provide adequate theory rooms that are well lit, ventilated and of appropriate sizes.

5.12.1.2 The minimum theory room floor area per trainee in square metres shall be 1.5 where the theory room has desks and chairs and 1.0 where the theory room has lecture chairs only.

5.12.1.3 National Polytechnic shall provide a minimum of one theory room for each course of study.

5.12.1.4 Every room used as a theory room shall:

a) be provided with windows with an effective area of not less than 20 per cent of the floor area of the room and 75 per cent of the window area openable to the external air;

b) not have a height of less than 2.60 meter from floor to ceiling, or where there is no ceiling to the wall plate; and

c) be provided with adequate, well illuminated writing surface at each seat and a place to set books and papers.

5.13   Staff Offices

5.13.1   National Polytechnic shall provide adequate space to accommodate academic and non-academic staff offices.

5.13.2   The departmental offices shall comprise of the following minimum number of offices/work space:

a) One Head of Department office;

b) Office Administrator's office;

c) Academic staff offices; and

d) At least one common room for staff.

5.13.3   Academic and non-academic members' staff offices shall have the following minimum floor areas:

a) Head of Department: 18 square meters;

b) Common room for staff: 18 square meters for every two trainers;

c) Non-academic staff: 7 square meters for one staff; and

d) Room used as administrative offices shall be seven (7) square meters in area minimum.

5.13.4   The administrative offices shall be conveniently accessible from the main entrance to the institution so as to serve as the logical reception point for special guests as well as general visitors arriving at the institution.

5.13.5   The minimum total office space provided for the National Polytechnic's central administrative offices shall be 50 square meters.

5.14 General Assembly Room

5.14.1 General

National Polytechnic shall provide a building facility for general assembly that shall be in the form of an auditorium, a large theory room or an assembly hall.

5.14.2 The assignable space per seat shall conform to the specifications contained in the Table 2.

Table 2 — Minimum space per seat in auditorium and assembly hall

No. of seats	Assignable space per seat in square meters
60 – 100	0.9
100 – 150	0.8
≥ 150	0.7

5.15 Training Laboratories, Workshops and Studios

5.15.1 National Polytechnic conducting courses requiring the use of laboratories or specialized facilities as part of instructional facilities shall, in addition to providing theory rooms, provide adequate laboratory facilities.

5.15.2 National polytechnic laboratory/workshop facilities shall:

a) be adequate and in close proximity to theory rooms;
b) have room for instructional workstations and each workstation per trainee shall, where possible adhere to the specifications contained in Table 3;
c) have the provision of storage and preparatory room, and a workshop/laboratory office;
d) have the provision of the following service facilities, where applicable:
    i. Adequate windows openable to external air,
    ii. Fume cupboards and fume hoods in the preparation and storage rooms.
e) have standard table top electrical service outlets for the instructor's table and for each pair of trainees' workstation;
f) have adequate lighting free of flare from exterior sunlight;
g) have surface treatment of floors, wall and ceiling to reduce noise;
h) have a sink with hot and cold water service installation for the instructor's table and for each pair of trainees' workstation;
i) have gas for the instructor's table and for each pair of trainees' workstation;
j) have the provision of built-in furniture and equipment;
k) have at least one instructor's table;
l) have, at least, one workstation for each pair of trainees, adequate stools or chairs, chalkboard, white board or tack board, wall mounted; and
m) have at least one corrosion resistant sink and eye-wash fountain.

Table 3 — Minimum laboratory space per trainee

S/N	Workshop/Laboratory	Minimum space per trainee in m^2
i.	Applied Science and Agriculture	2.80
ii.	Health and related sciences	2.70
iii.	Telecommunication	2.40
iv.	Mass Media (TV, Radio)	2.80
v.	Engineering (excluding Mechanical)	3.70
vi.	Engineering (Mechanical)	6.50
vii.	Architecture	80
viii.	Hotel/Hospitality Management	2.80
ix.	Hair and Beauty	2.40
x.	Clothing	2.40
xi.	Computer Science/IT/Secretarial	1.50

5.15.3   National Polytechnic offering health related courses shall have the laboratory requirements specified in the specified curriculum, and any specialized provisions specified by the relevant professional bodies.

5.15.4   National Polytechnic offering Building, Civil, Water Engineering or other related programmes shall have but not limited to:

a) Workshops for carpentry and joinery, masonry and concrete works and building services;
b) Laboratory space for materials sciences, concrete technology and soil mechanics; and
c) Spaces for demonstration units in various building construction techniques.
d) Drawing office.

5.15.5   National Polytechnic offering Architecture shall have studios for each class with adequate individual workspace at the rate of 2.8 square metres per work station and the institution shall also have but not limited to:

a) Architectural design studios for each class with adequate individual workspace of 2.8 m^2 per trainee and a minimum of 2.0 m^2 pin-up area;
b) An architectural science laboratory with sufficient equipment specifically to study thermodynamics, acoustics and lighting;
c) One material display space (materials library);
d) One carpentry, masonry and plumbing workshop; and
e) Spaces within the overall premises of the department for external activities such as those required for workshops fabrication and for erection of buildings components and for testing their exposure of weather activities.

5.15.6   National Polytechnic offering Mechanical Engineering (Automotive, Plant, Production or other related programmes) shall have the following workshops/laboratories where applicable:

a) Production/Machine Workshop;
b) Metrology Laboratory;
c) Mechanical Engineering Plant Workshop;
d) Fluids Laboratory;
e) Thermodynamics Laboratory;
f) Automotive Workshop;
g) Materials Laboratory;

h) Welding and Fabrication Workshop;
i) Drawing Office.

5.15.7 A National Polytechnic offering Electrical and Electronics Engineering programmes shall have the following workshops/laboratories where applicable:

a) Electrical Power Laboratory;
b) Electronics/Telecommunications Laboratory;
c) Instrumentation Laboratory;
d) Electrical Installation Workshop;
e) Drawing Office;

5.15.8 National Polytechnic offering Institutional Management programmes shall have a production workshop and service area, provided with adequate installations for instructions in food preparation, cooking and services. Catering and Accommodation practical rooms shall also be equipped with laundry and ironing facilities.

5.15.9 National Polytechnic offering Food Science programmes shall have a food laboratory.

5.15.10 National Polytechnic offering Agricultural programmes shall have at least two and a half hectares of land set aside as an institution farm over and above the land requirement that is stipulated for an ordinary institution.

5.15.11 National Polytechnic offering Computer Science, Information Technology or Computer Applications shall have adequate computer laboratories that incorporate the following:

a) At least one computer for every two trainees;
b) A local area network running on a platform that is current; and
c) Access to internet.

5.15.12 National Polytechnic offering broadcast media programmes shall have the following:

a) Broadcast media studio for radio/TV production;
b) Computer laboratory installed with sound/video editing software.

5.15.13 National Polytechnic offering photography programmes shall have a photography studio.

5.15.14 National Polytechnic shall provide other additional training equipment and/or facilities as shall be recommended by professionals as a result of emerging issues and/or global trends.

5.16   **Studios, Laboratories and Workshops for Fine Arts**

5.16.1 National Polytechnic offering Fine Art and related programmes shall have the relevant studios, laboratories and workshops.

5.16.2 National Polytechnic shall provide:

a) Studios for drawing from life, general drawing, basic design painting, ceramic and films; graphic photography and print, life painting, still life painting, textile design and weaving and sculpture;

b) Laboratories for ceramic glazing and testing, glass design and technology, silver smiting and jewellery, musicology, remote sensing, photogrammetry and computing;

c) Workshop space for model casting, woodcarving and hydrography;

d) Space for sculpture, garden outdoor wood burning kilns and such other facilities as may be   specified by the curriculum.

5.17   Laboratories for Telecommunication Engineering

5.17.1 National Polytechnic offering Telecommunication Engineering and related programmes shall have laboratories with adequate space for digital and analogue communication, electromagnetic engineering, control and fibre – optics.

5.17.2 National Polytechnic shall have, but not limited to the following, for every year of study;

a) Anechoic chamber, servers and workstations;
b) State-of-the-art facility for wireless sensor networks, network security, mobile networking, data packet routers, voice over IP gears with software switch, media server, trunk gateway, IP phone;
c) Equipment, such as, microwave trainer, antenna trainer, network analyzers, signal generators, digital oscilloscopes and tools;
d) Theory rooms equipped with visual aids; and
e) Adequate space that is required for all the activities is approximately 3.9375 m^2 per trainee.

5.18   Library Facility

National Polytechnic shall provide library facilities for trainees in accordance with Clause 7.

5.19   Catering and Accommodation

5.19.1 National Polytechnic providing catering facilities for trainees shall ensure that the facilities are adequate, safe, well-lit and ventilated.

5.19.2 National polytechnic catering shall have:

a) food preparation area of not less than 0.50 square meters per trainee;
b) dish washing and serving areas, of not less than 0.50 square meters per trainee;
c) kitchen storage of not less than 0.50 square meters per trainee;
d) kitchen staff and services area of not less than 0.50 square meter per trainee; and
e) a dining hall of not less than 1.25 square meter of floor area per trainee;
f) adequate facilities for cleaning utensils, and of suitable and sufficient washing and sanitary facilities in form of lavatories, shower rooms, changing and cloakrooms for kitchen staff; and
g) sufficient provision for doors to ensure rapid exit in case of fire or other emergency.

5.20   Recreational facilities

5.20.1 National Polytechnic shall provide adequate recreational facilities for trainees and staff.

5.20.2 National polytechnic shall:

a) provide common rooms with adequate indoor sports and recreational facilities for staff and trainees;
b) provide for outdoor sports and recreational activities;
c) Procure legally binding memorandum of agreement where sports and recreational facilities are leased or shared.

5.21 Trainees' accommodation

5.21.1 The total floor area of rooms used as trainee accommodation shall not be less than the following area:

a) Single room, 8.00 m^2;
  b) Double trainee room or cubicle, 14.00 m^2; and
  c) Three or four trainee room 18.00 m^2;

5.21.2 Trainees' accommodation in National Polytechnics shall be provided in facilities that are adequate, safe, well-lit and ventilated.

5.21.3 Trainees' accommodation shall:

a) House not more than four trainees per room;
b) Be separate for male and female trainees; and
c) Be provided with sufficient doorways in every trainee hall to ensure rapid exit in case of fire or other emergencies.

5.22 Utility Services

5.22.1 National Polytechnic shall have adequate, safe, reliable and adequate water supply installed in accordance with the requirements of the Building Code of the Republic of Kenya.

5.22.2 Quality of water supplied shall:

a) Be wholesome, free from any contamination that may cause disease or injury to health, has no objectionable taste and odour, is aesthetically acceptable and has been certified as such by a recognized water laboratory;
b) Conform to the requirements of current edition of drinking water standards;
c) Make available cold water storage facility in each building for domestic purposes taken from the main supply to the buildings or cold water storage tank in each building with sufficient capacity to meet not less than twenty-four hours demand from the building's users or a minimum water demand of 100 litres per day per person;
d) Make provisions for water harvesting to supplement the main water supply;
e) Have additional storage facility in every National Polytechnic where animals are kept;
f) Provide and maintain an adequate cold water storage facility for fire-fighting purposes at the rate of 10 litres per second continuous flow for two hours;
g) Acquire a borehole drilling permit and borehole logs or water withdrawal permit from a surface source from Water Resources Authority (WRA) where the National Polytechnic has developed its own water supply; and
h) Harvest the available rain water from every new building in accordance with the latest edition of the Building Code of the Republic of Kenya.

NOTE 1 There shall be a central cold water storage facility from the main water supply to the National Polytechnic or of a storage facility with sufficient capacity to meet not less than three days demand from the National Polytechnic community or a minimum water demand of 100 litres per day per person;

NOTE 2 The availability of reclaimed/recycled grey water for use for purposes other than drinking and cooking as stipulated in the latest edition of Building Code of the Republic of Kenya.

5.23   Waste Water Disposal

5.23.1   National Polytechnic shall provide an appropriate and adequate waste water collection, treatment and disposal system.

5.23.2   National polytechnic shall have:

a)   A satisfactory drainage system for water.
b)   Adequate means of sewage and waste water disposal by means either of the relevant local authority main sewer or of septic tanks, conservancy tanks or cesspool constructed to specifications contained in the Building Code of the Republic of Kenya; or other waste water treatment system approved by the relevant government agencies that includes, County government, National Environmental Management Authority (NEMA) and Water Resources Authority (WRA).
c)   Avail evidence of conformance to the provisions of the National Standards for effluent discharge to the environment.
d)   Evidence of approval by the relevant Government agencies that includes, County government, National Environmental Management Authority (NEMA) and Water Resources Authority (WRA); for all disposal systems other than those connected to a local authority's sewage system.

5.23.3   For National Polytechnics not connected to any sewerage system, availability of at least two hectares of land set aside for the construction of a sewage plant and the land shall be so situated as to ensure public health and safety from effluent and odour originating from the plant.

5.24   Surface Run-off/storm Water Collection and Disposal

5.24.1 The drainage system shall be able to drain and dispose of surface water in such a manner as to cause the least inconveniences or nuisance to the public.

5.24.2 There shall be no surface run-off or storm water from National Polytechnic buildings and related infrastructure such as roads, parking areas, and playing fields.

6   Competence Based Education Training (CBET) Programmes

These requirements and guidelines are intended for use by the National Polytechnics in Kenya in the development, implementation, quality assurance and review of TVET CBET Programmes.

NOTE Focus has also been given to the provision of TVET resources for the support of the programmes.

6.1   TVET CBET Programmes Accreditation

6.1.1   The Authority shall evaluate the programmes, ensuring that the said programme has met the various Competence Based Education Training and Assessment (CBETA) requirements and national needs prior to the programmes being launched.

6.1.2   National polytechnic shall demonstrate availability of sufficient resources to run the TVET CBET programmes for at least half of the programme duration of study before consent for Accreditation.

6.1.3   TVET CBET programmes shall be launched with consent of the Authority upon meeting the initial requirements. These requirements shall be in accordance with TVETS 01:2019.

6.2   Quality Assurance Systems

6.2.1   Each National Polytechnic shall have internal quality assurance systems and mechanisms in line with the Authority's prescribed guidelines.

6.2.2   The Authority shall be the external quality assurance agency of the National polytechnics in Kenya.

6.2.3   Each National Polytechnic shall establish, implement and review its own internal quality assurance of TVET CBET programmes.

6.3   Collaboration on TVET CBET Programmes

6.3.1   Any institution seeking collaboration with another to offer TVET CBET Programmes shall ensure that the mother institution is accredited in its country of origin and that the programme has been accredited/validated by the relevant accrediting body or the state.

6.3.2   Accredited National Polytechnics, by virtue of their training license, shall be authorized to collaborate/affiliate with other institutions on given TVET CBET Programmes, provided that the said institution has institutional and programme accreditation.

6.3.3   The collaboration shall be communicated to the Authority for purposes of updating database.

6.3.4   Any other institution seeking collaboration on TVET programmes with another institution within or outside the country shall meet the following requirements.

6.3.4.1   The TVET CBET Programme shall be in existence in the institution being sought for collaboration.

6.3.4.2   The institution offering the TVET CBET Programme shall be accredited in its country/region of origin.

6.3.4.3   The TVET CBET Programme shall be recognized/validated by regulator body, where applicable.

NOTE   TVET CBET Programmes that are not regulated shall be subjected to the Authority's validation/accreditation processes before consideration can be given to collaborative status.

6.3.4.4   There shall be evidence of an existing detailed written Memorandum of Understanding, where applicable, between the institution seeking collaboration and the institution being sought for collaboration.

6.3.4.5   The collaboration details shall include:

a)   Description of the parties;
b)   The nature of the collaboration;
c)   Objectives of collaboration;
d)   Obligations of each party;
e)   Mandatory Clauses:
- Governing laws;
- Management of the Collaboration;
- Intellectual Property Rights;
- Material Transfer Agreement;
- Duration of the Memorandum;
- Implementation;
- Settlement of Disputes;
- Force Majeure;
- Review and Amendments;
- Termination of Memorandum;
f.   Contact address; and

g. Signatures from the management of the two (2) or more institutions seeking the collaboration.

6.4 New TVET CBET Programmes

6.4.1 Development of TVET CBET Programmes

6.4.1.1 A TVET CBET Programme shall facilitate a balanced learning process, ensuring that the trainees are able to acquire such cognitive, affective and psychomotor skills as are consistent with educational goals and aspirations of Kenyans.

6.4.1.2 The design of a TVET CBET Programme shall ensure:

a) Contextualization and relevance;
b) Contribution to the overall national human resource development and requirements;
c) Broad-base, diversification and integration aspects;
d) Practical-orientation; and
e) Adherence to the Authority's CBETA standards and guidelines and processes in TVET curriculum development.

6.4.1.3 Each level of TVET CBET Programme shall be differentiated by specific KNQF attributes. Higher levels of TVET CBET Programmes shall require higher and more complex attributes.

6.4.1.4 An institution shall have successfully graduated several cohorts of the lower level TVET CBET Programme before proposing a higher level TVET CBET Programme.

6.4.1.5 National Polytechnic shall have a Programme Development Team that guides the institution on programme and curriculum development in accordance to TVETS 01:2019.

6.4.1.6 TVET CBET programmes shall have the following categories:

a) Skills Certificate II (SC II) or Trade Test II (TT II) or Vocational Training Certificate II (VTC II) or Semi-Skilled Operator Level 3 as the lowest. The TVET foundational programme shall have a Minimum of 30 Credits;
b) Artisan Certificate or Vocational Training Certificate III (VTC III) or Skills Certificate I (SC I) or Trade Test I (TT I) or Skilled Operator, covering a minimum of 60 Credits;
c) Craft certificate or Vocational Training Certificate IV (VTC IV) or Master Craft Person III or Advanced Operator, covering a minimum of 120 Credits;
d) Diploma Certificate or Technicians or Skilled Supervisors or Master Craft Person II, covering a minimum of 240 Credits; and
e) Bachelor's degree or Management Professional or Master Crafts person 1 as the highest, covering a minimum of 480 Credits.

NOTE Bachelor's degree or Management Professional or Master Crafts person 1 shall be offered in collaboration with a university.

6.5 Evaluation of TVET CBET Programmes

6.5.1 New TVET CBET Programmes from the Public or Private National Polytechnic shall be submitted to the Authority for accreditation.

6.5.2 A revised TVET CBET Programme shall be considered new, thus warranting re-submission to the Authority for re-accreditation if its content is more than 30% different from that in the original programme.

6.5.3 New TVET CBET Programmes from the National Polytechnics shall be submitted to the Authority for evaluation quarterly.

6.5.4 The evaluation process of a proposed TVET CBET Programme shall be in accordance to TVETS 01:2019.

6.6 Professional Programmes

6.6.1 Professional programmes shall:

a) Only be considered for approval if the basic programmes on which they are dependent are on offer in the said institution; and
b) Be granted approval by the respective professional body prior to being recognized as approved programmes by the Authority.

6.7 TVET CBET Programme Structure

6.7.1 TVET CBET Programme structure shall be as provided for in TVETS 01:2019, clause 4 and shall include background information of the institution (vision, mission and core values), information on the various programme facets and details on the TVET resources for the support of the programme.

6.7.2 TVET CBET Programme structure shall be consistent with TVETS 01:2019, clause 4.

6.8 Admission Qualifications

6.8.1 Institutions shall set up the TVET admission requirements for programmes on offer in line with Kenya National Qualification Framework regulations and professional bodies, where applicable.

6.9 National Polytechnic Training Staff

6.9.1 Each TVET CBET Programme shall be headed by an appropriate and qualified senior training staff with a minimum of five (5) years' experience in TVET institution training, with a bachelor's degree in a relevant field of study. The programme's leader shall be on full-time employment.

6.9.2 Each TVET CBET Programme shall be supported by at least two (2) other appropriate full-time training staff members.

6.9.3 The ratio of full-time to part-time TVET staff members shall be 2:1.

6.9.4 Each institution shall determine its trainer: trainee ratio based on their available TVET resources. However, the maximum Trainer:Trainee ratio for each course shall be as follows:

a) Discussion-based Courses - 1:30;
b) Practical-based courses - 1:20.

6.9.5 A trainer shall be assigned trainees to supervise on project work based on a combination of his/her Training load, administrative duties, and supervision.

6.9.6 The trainer workload shall include training; preparation of examination papers; marking of examination scripts; tutorials; preparation of training; supervision of TVET work; administrative work; laboratory and laboratory preparation; and research/research assignments.

6.10 Reference Materials

6.10.1 Each course of a given programme shall be supported by relevant core texts/manuals and references recommended for further reading, which shall comprise of both print books, illustration manuals and electronic sound/video resources.

6.10.2 A maximum of two (2) current core texts shall be assigned to every given course.

4.10.3 Each institution shall adopt an APA referencing style for consistent application throughout the curriculum.

6.10.4 The library shall be stocked with adequate number of appropriate reference materials for each programme on offer.

6.11 Facilities and Equipment

6.11.1 Each programme shall be supported by appropriate modern, relevant and adequate number of facilities and equipment as dictated by the nature of the programme.

6.11.2 Each programme shall be supported by a minimum of theory room for a two-year programme, departmental offices, and workshop or laboratory facilities.

6.11.3 A rotation plan shall be availed for facilities and equipment that are shared among several programmes.

6.11.4 Memoranda of Understanding shall be available for facilities and equipment sourced from other institutions for the support of the programme.

7 Library Services and Facilities

7.1 Information Resources

7.1.1 The information resources shall be relevant, adequate in quality and quantity and shall include those that cater for users with special needs;

7.1.2 The library shall:

a) subscribe and facilitate access and availability of electronic information resources;
b) establish and sustain institutional repositories; and
c) have an Advisory Committee responsible for collection development.

7.2 ICT Resources

7.2.1 A National Polytechnic library shall adopt and maintain Information Communication Technologies in information management and its operations.

7.2.2 The library shall:

a) Establish ICT policies to guide adoption and maintenance;
b) Establish library ICT infrastructure and systems that integrate with the National Polytechnic-wide ICT environment;
c) Install library systems that support data exchange using standard protocols and formats;
d) Establish disaster recovery and business continuity plans;

e) Provide ICT hardware and software that adequately facilitate the information management needs of the library;
f) Provide appropriate levels of internet bandwidth to facilitate downloads and uploads;
g) Provide for the digitization of information resources; and
h) Provide a competent library professional dedicated to the management of library ICT infrastructure.

7.2.3   In addition, the following minimum requirements shall be provided:

a) space for installation of computers for users;
b) computer workstation/terminal space, of 2 square meters minimum for single user;
c) dedicated computer terminals connected to Intranet and Internet for users and with relevant software for research;
d) adequate ICT personnel for computer maintenance; and
e) a closed access server room with adequate air conditioning for managing library system and other ICT services.

7.3   Organization and Access to Information Resources

7.3.1   National Polytechnic library's information resources shall be organized, for efficient access and retrieval, using internationally recognized conventions and standards.

7.3.2   The resources shall:

a) be organized using appropriate international recognized classification systems;
b) be accessed through a comprehensive catalogue of the library holdings; ensure reasonable and convenient access to information resources for the users;
c) ensure access and retrieval of resources taking into consideration persons with special needs; and
d) ensure availability of information resources.

7.4   Library Services

7.4.1   National Polytechnic library shall establish, promote and sustain quality services that will facilitate training, learning and research.

7.4.2   The established services shall include:

a) Reference and information;
b) Information resources;
c) Circulation;
d) Current awareness;
e) Inter Library;
f) Information Literacy;
g) Reprographic;
h) Multimedia;
i) Knowledge management;
j) Preservation; and
k) Archiving.

7.5   Library Facility

7.5.1   National Polytechnic library shall provide adequate facility for trainees, trainers, staff and other authorized users as a convenient and conducive place for study and research.

7.5.2   National polytechnic Library shall:

a)   create an ambience appropriate for scholarship and conducive to learning, access to information and the delivery of high quality services;

b)   have in place mechanisms to minimize or avoid security risks associated with the users, the collection, the equipment and data;

c)   have a design that enables the library to develop, and provide services that are responsive to the changing library and information needs of learning and scholarship;

d)   have a high degree of flexibility or adaptability so that the use of space can easily be changed by rearranging the furniture and equipment;

e)   have Sufficient doorways which are openable outwards, to ensure rapid exit in case of an emergency;

f)   be convenient for all including users with special needs;

g)   have adequate ventilation and conducive aeration;

h)   provide secure windows; the effective areas of which shall not be less than 20 per cent of the floor area of the room and 75 per cent of the windows should be openable to external air;

i)   provide spaces for the collection, display, reading, meeting, space for electronic workstations, multimedia workstations, viewing rooms and listening rooms, open use seating, user instruction rooms, staff working areas including staff lounges and kitchenettes, space for special use, preservation and conservation such as bindery;

j)   be regularly maintained;

k)   incorporate ICT needs and function as an integral part of the design concept including trunking, cabling and wireless connectivity;

l)   have a minimum sitting capacity of 10% of trainees enrolment and 25% of training staff

m)   have a minimum study space of 2.5 square metres per reader;

n)   have stack areas for books of at least 10.75 square metres per reader; and

o)   have adequate luggage area for trainees and training staff.

7.5.3   There shall be engagement of professional librarians in the planning of the library building at every stage.

NOTE   It is assumed that each study space should be used by three readers in a day

7.6   Staffing

7.6.1   National Polytechnic library shall have appropriate, qualified and adequate staff commensurate with the training CBET Programmes offered, the institutional population, the number of service points, and the hours during which services are offered.

7.6.2   The National Polytechnic shall appoint a designated head of the National Polytechnic library from one of the senior officers of the National Polytechnic.

7.6.3   The library staff shall:

a) comprise professional and technical staff in the ratio of 35 to 65 professionals and technical;

b) have access to different forms of ongoing/continuing education with a view to exposing them to new developments in all areas of information work;

c) be adequately represented in the academic Board and other governing bodies; and

d) be sufficient in quantity to meet the diverse training, learning and research needs of trainers and trainees.

7.6.4 Librarians shall have training status and be on the same terms and conditions of service as training staff.

7.6.5 Appointments of staff to the national polytechnic libraries shall be in accordance to Table 4.

Table 4 — Minimum qualifications for national polytechnic library staff

Position	Minimum Qualifications
Head of National Polytechnic Library	A Masters in Library and Information Science or related fields; At least Five years' experience as senior librarian from a reputable educational institution.
Deputy Head of National Polytechnic Library	A Masters in Library and Information Science or related fields; At least three years' experience as senior librarian from a reputable educational institution.
Librarian	A Bachelor's degree in Library and Information Science or related fields; At least three years' experience as assistant librarian from a reputable educational institution.
Assistant Librarian	At least a diploma in Library and Information Science or related fields; At least one year experience as an assistant librarian from a reputable educational institution.

7.7 Administrative Structure

7.7.1 National Polytechnic library shall have an administrative structure that is fully integrated with the institutional organizational structure.

7.7.2 The library shall:

a) be fully-fledged academic organ within the National Polytechnic structure;

b) be formally represented in the academic committee;

c) establish a Library Advisory Committee/ library management committee, which will deal with the aspects of library policy, its development and integration in the National Polytechnic's training CBET Programmes; and

d) have a clear internal administrative structure, established with well-designated job responsibilities at the various levels.

7.7.3 The Head of the National Polytechnic Library shall:

a) be designated in the legal order; and

b) report to the Principal or Deputy Principal responsible for training.

7.8 Library Budget

7.8.1 The National Polytechnic shall provide at least five percent (5 %) of the total operational budget annually for acquisition of information resources excluding personal emoluments and capital development.

7.8.2 The library budget shall:

a) be adequate to support the ongoing and appropriate needs of the library;
b) be adequate for the library to acquire print and electronic information resources;
c) take into consideration the instructional methods of the institution;
d) provide for the current and anticipated size of the user population; and
e) be prepared, justified and administered by the Head of the National Polytechnic Library.

7.9   Information Literacy and Competency

7.9.1   The National Polytechnic library shall facilitate the success of training and encourage lifelong learning through information literacy and competency initiatives.

7.9.2   The librarians, in partnership with the departments, shall provide information and instruction to all users through a well-structured information literacy and competency programme.

7.9.3   The library shall stock materials relevant for the implementation of curricular to meet the emerging information literacy needs of the trainees and departments.

7.9.4   The library shall prepare an information literacy policy.

7.10   Open, Distance and e- learning library services

7.10.1   The National Polytechnic shall provide adequate resources to support open, distance and e- learning library services, where applicable. The requirements for open, distance and e-learning library services shall be the same as for the traditional libraries except for standards on library building.

7.10.1   The National Polytechnic shall provide facilities, equipment and communication links, sufficient in size, number, scope, accessibility to reach all users and to attain the objectives of the open and distance learning programs.

7.10.2   The library services offered to the open and distance learning community shall be designed to ensure reliability and sustainability.

7.11   Library Outcomes Assessment

7.11.1   The National Polytechnic library shall establish a sustainable and continuous user-centred mechanism for library outcomes assessment aligned to the National Polytechnic outcomes.

7.11.2   The library shall identify measurable outcomes, both qualitative and quantitative, which focus on the following:

a) the performance improvement of trainees through contacts with the library;
b) staff/trainees perception of the library as a valuable and integral part of training, learning and research; and

c) Whether the library's bibliographic instruction program results in a high level of "information literacy" among trainees.

Annex A
(normative)

Requirements for Mission, Vision Statements and Core Values

A.1   The Vision statement shall clearly outline what the National Polytechnic desires to be.

A.2   The Mission statement shall incorporate elements of the National Polytechnic's business purpose and values, succinctly describing why it exists and what it does to achieve its vision.

A.3   Statements of Vision and Mission shall be prominently displayed and appear in key documents of the National Polytechnic.

A.4   The Core Values of the National Polytechnic shall be clearly stated.

Annex B
(informative)

Template on Nomination of Public National Polytechnic Council Members

	Section 2	Sex	Qualifications	Occupation/ place of work	County of birth	Nomination committee Resolution
A	**a) Chairperson**					
1						
2						
3						
4						
B	**PS representative (TVET):**					
1						
C	**County Governor's representative**					
1						
D	**Six Categories**					
i.	**Leadership and management**					
1						
2						
3						
ii.	**Financial management**					
1						
2						
3						
iii.	**Technology**					
1						
2						
3						
iv.	**Industry**					
1						
2						
3						
v.	**Engineering**					
1						
2						
3						
vi.	**Information Communication Technology**					
1						
2						
3						

Annex C
(normative)

Types of national polytechnic buildings for public safety requirements

C.1   Any building or structure of two storeys or more or in which provision may be made for future development of such number of storeys.

C.2   Any building or structure of whose storey height from ground floor to eaves level or ceiling is over 6 meters and with roof span greater than 10 meters.

C.3   Any building or structure in which any suspended structural floor panel beam or frame exceeds 6 meter in span.

C.4   Any building or structure in which a balcony is provided for purposes of public assembly.

Annex D
(informative)

Evaluation of TVET CBET Programmes

The peer reviewers who are mainly monitors and evaluators shall have the appropriate TVET qualifications and experience in the field in focus and shall have been registered as monitors and evaluators.

These shall be drawn from one (1) of the following two (2) categories:

TVET Institutions

The monitors and evaluators are mainly drawn from public accredited TVET Institutions. They should have been Principal trainers, Senior trainer/Developer for a minimum of five (5) years with a related degree in the relevant field of programme. For programmes where there is scarcity of degree level TVET staff, senior trainers who are holders of relevant diploma shall also be considered.

Industry

The monitors and evaluators drawn from industry should be holders of a degree level in a relevant field with more than five (5) years working experience in the field. Where applicable, they should also have membership in a professional body and a practicing/professional license.

Verification of TVET resources for the support of the programme by peer reviewers.

Approval of the programme by the Authority.

Annex E
(informative)

Structure of TVET CBET Programmes

E.1   The institution's background information, which includes the vision, mission and core values of the institution; the institution's minimum admission requirements; the TVET resources in the institution including facilities (*theory rooms, library, Information and Communication Technology, laboratories, workshops, studios and tuition farms/fields*) and equipment (*computers, printers, projectors, computer software, laboratory , audio-visual equipment*), TVET staff (*both Training and technical*) and reference materials *(books and journals, print and online reference materials*); the programmes offered by the institution including duration of each programme, CBET organization of the programmes and definitions of terms including course units, credit hours, theory and practical hours and industrial attachment hours.

E.2   Information on the various facets of the programme including its title, descriptor; rationale including market survey implications; Goal; Expected Learning Outcomes of both the programme and the specialization areas (if any); Mode of Delivery and assessment; KNQA Regulations comprising of admission requirements, regulations on credit transfer, programme requirements, trainee assessment policy/criteria, grading system, assessment regulations including verification of trainees assessment results, certification rating and requirements, Portfolio/Reports/projects (where applicable); Programme Evaluation; Management and Administration; List of Courses/units; Duration and Structure; Course Distribution Table and Course Outlines including course title, purpose, expected learning outcomes, content, mode of delivery, instructional materials and/or equipment, assessment, (*reference materials including textbooks, journals and e-materials*).

E.3   Appendices of the TVET resources for the support of the programme comprising of the facilities; equipment and training materials; core-textbooks and journals; TVET staff; and the National Polytechnic Policy on Curriculum Development.

E.4   There shall be a linkage between the various facets of a TVET CBET Programme:

   a)   The institutional information shall be cascaded down to the programme while the programme's general information shall be cascaded down to the various courses of the programme; and

   b)   The course title shall be reflected in the occupation of trained person and the course's expected learning outcomes. The expected learning outcomes shall be reflected in the course content, which shall be linked to the mode of delivery, instructional materials and/or equipment, assessment and reference materials.

E.5   TVET CBET Programme title - This shall be reflective of its content.

   a)   It shall adopt universal nomenclature for similar programmes.
   b)   It shall be short, concise and descriptive of its overall content.
   c)   The appropriateness of a TVET CBET Programme title shall be determined by:

   i.   At least 70% of the content being relevant and core to the TVET CBET Programme. This includes both core and specialization courses; and
   ii.   For TVET CBET Programmes titles that include two (2) fields of study, the allocations of core courses to the two (2) fields being equally shared.

   d)   Two (2) or more similar TVET CBET Programmes shall be considered distinct, thus warranting unique programme titles, if more than 30 % of the content is different.

E.6   TVET CBET Programme content

a) The content of a given programme shall reflect the vision and mission of the institution and shall be aligned to the Vision 2030 and Millennium Development Goals.

b) The content of a given TVET CBET Programme shall be presented in a systematic manner as follows:

   i.   Basic Foundational courses;
   ii. Common Courses focusing on concepts and principles;
   iii. Core Application and Skills Development courses; and
   iv. Field attachment Practical and Project-based courses.

E.7   Course codes

Distinct course codes shall be provided for the various courses on offer as provided by the Authority.

a) An outline of the various types of course codes applicable to the courses of the programme shall be provided;

b) The course codes shall comprise of International Standards for Education (ISCED) digits and a version control letter; and

c) The digits of the course code shall represent the sectors/Sub-sector and training subject area from which the specific course is drawn and serial of the unit.

E.8   TVET Programme organization and structure

Each institution shall clearly articulate the organization and structure of its programmes and shall include its training calendar mode; duration of each segment of the training calendar; definition of course/unit/credit hours/training hours in relation to the training calendar; total number of courses; and course distribution table.

a) The training calendar for any given institution shall be divided into one of the following modes:

   i.   Semesters, which comprise two (2) equal divisions/terms of between 15-17 weeks in a TVET year;
   ii. Trimesters, which comprises three (3) equal divisions/terms of between 13-15 weeks in a TVET year; or
   iii. Quarters, which comprises four (4) equal divisions/terms of between 9-12 weeks in a TVET year.

b) The institution shall define the terms' credit hours/ hours/contact hours in its own context, relating the terms to each other, where appropriate, and the semester/trimester/quarter mode.

c) One credit hour shall be equated to:

   i.   One (1) contact hour in a knowledge-designed session;
   ii. Two (2) contact hours in a group discussion-designed or open-learning-designed session;
   iii. Three (3) contact hours in a laboratory-designed or practicum session; and
   iv. Five (5) contact hours in a farm or similar practice.

d) The institution shall provide the total number of knowledge contact hours allocated to any given programme, in line with KNQF prescribed standards and professional bodies (where applicable).

Annex F
(informative)
Library Facilities

F.1   A high standard of internal finish and furnishings is essential to withstand heavy use over an extended period;

F.2   Stable environmental conditions are required not only for long-term preservation of library materials but also for operation of computers and other equipment;

F.3   Functionally, the space must be adequate for print and IT based resources and to facilitate for the delivery of services. The design should recognize the crucial importance of people, books and information technology and information services;

F.4   The building design shall permit future growth with minimum disruption to the services being offered;

F.5   The building shall be designed for ease of movement of users, staff and library resources;

F.6   Access to all parts of the library, shall be as straightforward as possible, requiring minimum directional signs and guiding;

F.7   The entrance and exit points for users, which are essential for good security and safety, shall be clearly defined;

F.8   A separate door for delivery and dispatch of materials shall be provided;

F.9   The building shall have controlled temperature, humidity, dust and pollution levels;

F.10   Conducive fenestration is essential to bring more natural light and users can enjoy good surrounding views;

F.11   The building shall be built so as to enhance the psychological and social aspects of space;

F.12   The building must place a high priority on indoor air quality, electrical safety, fall protection, ergonomics, and accident prevention;

F.13   Emphasis shall be placed upon good systems of fire detection, use of sprinkles, fire extinguishers and other ways of fire suppression;

F.14   Visible fire and other emergency evacuation exits shall be provided with no obstruction to their access;

F.15   Keys to the emergency exit doors shall be stored at a location which is secure but easily accessible;

F.16   The building design shall also involve implementing countermeasures to detect, delay, deny and deter attacks from human aggressors;

F.17   Library stacks and records storage area shall typically be designed to bear full stack weight at all points;

F.18   Ambient lighting, whether natural or artificial, sufficient for shelving, circulation, reading and workrooms shall be provided;

F.19   Carrels and tables shall be sized to accommodate users with laptops.

F.20   Stack area for bound journals and reference books shall be 10.75 square metres for 1000 volumes;

F.21   Display area for current journals shall be 9 square metres for 100 titles;

F.22   Aisles between fixed ranges of book stacks shall be 42-inch (107cm) in order to accommodate wheelchairs and permit them to turn;

F.23   Library staff and service areas shall constitute 18 to 25 per cent of the combined user space and stack area;

F.24   Service areas such as toilets and corridors shall constitute 18 per cent of the usable space;

F.25   Minimum ceiling heights should be uniform at minimum of 3.5 metres;

F.26   The sitting capacity shall be adequate for at least 10% of the total trainee enrolment and 25% of full time teaching staff; and

F.27   A National Polytechnic Library shall provide adequate and relevant textbooks and other resources in the programmes offered at a ratio of 1:5 readers. In addition, a library shall have one electronic resource facility for every five readers.

Annex G
(informative)
Office space

G.1 Staff Offices

a) Library staff at managerial level (head of National Polytechnic library, deputy head of National Polytechnic library, senior librarian and equivalent heading department shall be allocated office space separate for self and secretary (where relevant).
b) Office space shall be either open plan or enclosed with minimum space in total 9 square meters.
c) The office shall be furnished with office chair, table, computer workstation/terminal, and chairs for visitors and including file cabinet and shelving.
d) The office shall be supplied with power to enable installation of computer system that provides access to Intranet and Internet connectivity.

G.2 Staff Workrooms

a) Library staff shall be provided with office space to be used as workrooms for receiving, processing, storage, and dispatch of information materials such as books, periodical, media, and other (cultural) artefacts.
b) The workrooms shall be open plan with minimum space of 4 square metres per individual staff (inclusive of space for materials being worked on and computer workstation/terminal).
c) The workspace for each individual staff shall be furnished with office chair, table, and book trolley, and computer workstation/terminal.
d) The staff workroom, in general, shall have shelves for storing materials awaiting processing or dispatch.
e) The workroom in general shall be supplied with power to enable installation of computer system that provides access to intranet and internet connectivity.

Annex H
(informative)
Furniture and Equipment

H.1 Furniture

d) The library shall be furnished with appropriate furniture for public use.
e) There shall be provided a chair of acceptable quality for each individual reader.
f) There shall be provided a reading/writing table (shared or not) measuring 2 square feet for individual reader.
g) There shall be provided easy chairs and coffee table for use in readers lounge one set for every 1000 readers.

H.2 Equipment

a) The library shall be equipped with appropriate equipment for public use.
b) Standard metal/wooden shelves measuring seven foot and five-foot-high and two and half feet wide shelving for books and journals.
c) The library shall have sufficient computers for library users.
d) There shall be provided at least one photocopier and printer in the library building for library users.
e) The library shall provide basic communication equipment for library users.
f) The library shall provide equipment for preservation and conservation of information materials.

Annex J
(informative)
Computer Space

J.1   The library shall provide space for installation of computers for users.

J.2   The computer workstation/terminal space shall be two square meter for single user.

J.3   The library shall have several dedicated computer terminals connected to Intranet and Internet for users and with relevant software for research.

J.4   There shall be adequate ICT personnel for computer maintenance.

J.5   There shall be provided a closed access server room with adequate air conditioning for managing library system and other ICT services.