THE TANZANIA COMMISSION FOR UNIVERSITIES

Guidelines

for

Online and Blended Delivery Modes of Courses for University Institutions in Tanzania

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P. O. Box 6562, 7 Magogoni Street, 11479 Dar es Salaam

Tel: +255 (0) 22 2113694

+255 (0) 22 2113691

Fax: +255 (0) 22 2113692

Email: es@tcu.go.tz

Website: www.tcu.go.tz

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LIST OF ABBREVIATIONS AND ACRONYMS

CC BY	Creative Commons Attribution
COVID	Corona Virus Disease
HEIs	Higher Education Institutions
ICT	Information and Communication Technology
LMS	Learning Management Systems
MOOCs	Massive Open Online Courses
OER	Open Educational Resources
TCU	Tanzania Commission for Universities

PREFACE

The Universities Act, Cap. 346 of the Laws of Tanzania mandates the Tanzania Commission for Universities (TCU) among other things, to coordinate proper functioning of all university institutions in Tanzania so as to foster a harmonised higher education system and regulate quality aspects.

In order to ensure that the unified higher education system does not compromise institutional contexts and autonomy, the university has the legal right to operate under its own Charter, granted by the President of the United Republic of Tanzania (in case of Mainland Tanzania) and President of Zanzibar (for the case of Tanzania Zanzibar) after having been processed through the Commission.

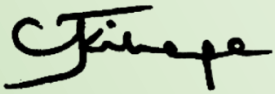
In executing its mandates, from time to time, TCU issues standards and guidelines on various aspects related to the provision of university education in the country. This is necessary in order to ensure that the education provided is up to date and meets national, regional and international standards.

In recent years, there has been an increased use of the internet and other mobile facilities among university staff and students. Visits to university institutions have shown that there are some developments in the area of Information and Communication Technology (ICT) that if improved can support online teaching and learning of courses. Evidence has further shown that institutions and the student community are open to embrace issues.//

Given the emerging of new diseases such as the Covid-19 pandemic that are limiting human to human contact and the development of ICT, TCU has found it necessary to develop these guidelines that shall be used to support teaching and

learning through online and blended modes in university institutions in the country. With these guidelines, universities shall be able to broaden their scope for providing quality education in situations where students cannot visit the campuses for face-to-face learning.

It is expected that university institutions will comply with these guidelines in all aspects with a view to ensuring that the education offered meets the standards irrespective of the mode of delivery used.



Prof. Charles Kihampa Dar es Salaam, February, 2022
Executive Secretary, TCU

EXECUTIVE SUMMARY

Evidence shows that the use of various Information and Communication Technologies (ICT) in universities in Europe and America has improved students' learning performance, reduce students' dropout rates, and has increased students' satisfaction with offered courses (Naveh et al., 2012). Higher Education Institutions (HEIs) in Tanzania have also been adopting them in a bid to gain similar benefits as their counterparts elsewhere.

However, the context of Tanzania is different and institutions face different challenges from those faced by Western institutions. As a result, the adoption and implementation of these systems do not guarantee that institutions will enjoy similar benefits as those institutions in the developed world. Indeed, due to several challenges, previous studies that have investigated contextual factors such as low internet connectivity, shortage of computers, and lack of electricity and has brought a lot of scepticism about the quality associated with programmes that are offered through online/blended modes.

Therefore, in order to ensure that online/blended programmes offer quality instructions that meet the required standards, the whole process of delivering courses needs to be monitored and guided. As online and blended delivery modes continue to grow and diversify, the need to ensure that these new forms of delivery support rather than reduce the value, quality and validity of higher education are important.

These guidelines have been developed in response to the need for online and blended delivery of education in higher education institutions in Tanzania with a view to ensuring academic standards are maintained across all courses offered by universities.

The guidelines were developed by a team of four experts from university institutions. The process of developing the guidelines involved a number of stages. This includes review and analysis of relevant literature. Further, the team conducted a situational analysis of university institutions in the country to establish their capacity to offer courses through online mode. In order to ensure that views of various stakeholders formed part of the guidelines, the team conducted semi-structured interviews with Quality Assurance Officers, Deputy Vice Chancellors, Heads of ICT Units, and Systems Administrators from more than ten (10) University institutions in the country.

The interviews allowed the team to collate information on various aspects such as ICT investments including human capacity in ICT; bandwidth, standby power supply, and internet facilities and software to support online/blended teaching and learning. In addition, the team assessed challenges that University institutions face in integrating ICT in teaching and learning and the mitigating factors that can be used to overcome those challenges. Furthermore, the team conducted benchmarking to learn best practices in online and blended teaching and learning in university institutions. The team also shared the developed guidelines with four (4) Professional Bodies, namely Engineers Registration Board, Architects and Quantity Surveyors Registration Board, Medical Council of Tanganyika, and Tanzania Nursing and Midwifery Council.

Team submitted the draft guidelines to Management of TCU which subsequently shared the draft guidelines with all University institutions in the country for the purpose of gathering inputs on the same from a wide range of stakeholders with a view to ensuring quality education is maintained irrespective of the delivery mode used. Comments

and suggestions received were incorporated in the draft guidelines.

The draft guidelines were further shared with the Committee of Vice Chancellors and Principals/Provosts in Tanzania (CVCPT) for the purpose of gathering inputs from the Committee.

The guidelines support the development of flexible learning opportunities using online and blended delivery methods, for access to higher education while ensuring the developed courses meet the national, regional and international market requirements. They establish a range of criteria that can help quality assurance bodies within universities assess online and blended programmes before they are submitted to TCU for accreditation.

The guidelines consist of a broad suite of themes for quality assurance and are categorised into eight areas namely; programme and course delivery, teaching and facilitation, learning resources, human resources, technology, course assessments, support services and monitoring and evaluation.

PRELIMINARIES

INTRODUCTION

The growth in Information and Communication Technologies (ICT) has resulted into challenges and opportunities in the teaching and learning processes. Universities around the world are devising modes of teaching, learning and assessment which are flexible, more accessible and more amenable to innovations in improving learning processes through online/blended delivery modes. Universities around the world have adopted online/blended mode to attract more students, increase institutional reputation, and attract research funding and new partnerships compared to those that relied only on the face-to-face delivery. The adoption of online/blended mode has enabled universities worldwide in improving students' learning, widen access to education and reduce the number of students' dropouts (Bates, 2009). The onset of emergencies such as the COVID-19 pandemic has increased the sense of urgency of higher learning institutions to adopt online technologies which can ensure continuity of programme deliveries.

Despite these benefits, there has been a lot of scepticism about the quality associated with programmes that are offered in online/blended modes. The most critical discussion is more often based on the dichotomy of traditional versus online programmes, a dichotomy that treats all online models as similar and ignores blended approaches (Hill, 2012). To ensure that online/blended programmes offer quality instructions that meet required standards, the whole process of delivering courses needs to be monitored and guided.

The Tanzania Commission for Universities (TCU) needed to develop the guidelines to guide the delivery and assessment of courses through dual or blended and virtual delivery modes in

university institutions. The guidelines are important in addressing the current trend of various programme delivery modes and the need to ensure that education offered meets national, regional and international labour market requirements. It will enable Universities to expedite the facilitation and development of materials for online training to ensure that teaching and learning are ongoing even in situations where face-to-face delivery mode is unlikely to happen.

The University institutions' operations are mainly guided by their respective Charters, the Universities Act, Cap. 346 of the Laws of Tanzania; the Universities (General) Regulations, G.N. No. 226 of 2013; and the Standards and Guidelines for University Education in Tanzania, 2019. As such, the development of guidelines for online learning took into consideration the provisions of these guiding and governance frameworks.

CONTEXT AND RATIONALE

For the past decade, there have been tremendous efforts to expand annual intakes in higher learning institutions in Tanzania yet enrolment is still very low. According to Lindow (2011), only 1.48% of Tanzanians participate in higher education which is the lowest in the sub-Saharan region. Despite the increased demand for university education, many University institutions in Tanzania cannot accommodate the increasing number of students through the residential mode (Ghasia et al., 2020). With increased access, online/blended programmes offer an opportunity for universities to expand enrolment. Similarly, changes in student body characteristics and an influx of ICT are also compelling institutions to re-think their education delivery methods.

Recently, University institutions in Tanzania have been implementing various technologies to improve the quality of face-to-face teaching and increase students' enrolments (Mtebe et al., 2021). The majority of these universities have been implementing Learning Management Systems (LMS), for instance, to support teaching and learning activities through the blended delivery mode. Some of these universities include the Open University of Tanzania (Bhalalusesa et al., 2013), Mzumbe University (Almas et al., 2021), Kilimanjaro Christian Medical University College (Ibrahim et al., 2020), Sokoine University of Agriculture, University of Dar es Salaam, Ardhi University (Mtebe & Raphael, 2018), and Mbeya University of Science and Technology (Mwalumbwe & Mtebe, 2017). Other universities include the University of Dodoma (Mtebe, 2020; Ngeze, 2016), Nelson Mandela African Institution of Science and Technology, Zanzibar University, and the State University of Zanzibar.

Similarly, many universities have significantly improved ICT infrastructure and the internet to provide a conducive environment for online and blended learning. Internet bandwidth and reliability are critical to the success of online programmes. Many universities have been connected to fibre optic cables such as the East African Submarine Systems project, SEACOM, and National ICT Broadband Backbone, which increased the capacity of the Internet to 4.72Tbps, 1.28 Tbps, and 4.8Tbps, respectively covering 7,560 Km long (MWTC, 2016). Consequently, the Internet was found to be available in most of the surveyed universities such as Nelson Mandela African Institution of Science and Technology (50 Mbps), Tumaini Makumira University (20 Mbps), Kilimanjaro Christian Medical University College (30 Mbps), Zanzibar University (50 Mbps), State University of Zanzibar (20 Mbps), Sokoine University of Agriculture (150 Mbps), Muhimbili University of Health and Allied Sciences (80 Mbps) and The University of Dodoma (300 Mbps). However, most Universities are complaining about internet reliability and capacity to handle large online traffic.

Some University institutions in Tanzania have been making use of Open Educational Resources and Massive Open Online Courses (MOOCs) to enhance the quality of face-to-face teaching as well as blended courses. For instance, the Open University of Tanzania and the University of Dar es Salaam adapted and used MIT OCW and resources from OER Africa to embrace the quality of existing courses (Mtebe & Raisamo, 2014, Sanga, Lwoga & Venter, 2006). Moreover, the World Bank in collaboration with Coursera (a MOOC platform) and the Tanzania Commission for Science and Technology (COSTECH) implemented the New Economy Skills for Africa Programme – ICT (NESAP-ICT) which aimed at building skills for the knowledge economy in Sub-Saharan Africa. Through this project, MOOCs in the IT curriculum was identified and

aligned with the needs of Tanzanian private sector employment tracks (Trucano, 2013). The ultimate aim of the pilot project is to help equip students with market-relevant IT skills.

With these developments, some universities have been offering blended programmes by combining face-to-face delivery with students accessing learning resources via the LMS. The University of Dar es Salaam, for instance, has been offering four postgraduate blended distance programmes: Postgraduate Diploma in Education (PGDE), Postgraduate Diploma in Engineering Management (PGDEM), Master degree in Engineering Management (MEM), and Postgraduate Diploma in Electronics Engineering and Information Technology (PGD-EIT) via regional centres in Mbeya, Mwanza, Dar es Salaam, and Arusha since 2007 (Mtebe & Raphael, 2017). More than 450 students have benefited from these programmes.

The Open University of Tanzania which, for a long time has been running pure distance learning through correspondence and exclusively face-to-face classes is now offering options for blended distance learning. The university is combining face-to-face teaching using Moodle system to enable students to access learning resources as well as communicating with their instructors. The university offers academic degrees, diploma, and certificate programmes to over 60,000 students spread across 28 regional centres in Tanzania (Bhalalusesa et al., 2013). Similarly, Mzumbe University is offering Master of Business Administration, Master of Science in Accountancy and Finance, Master of Science in Procurement, and Master of Science in Project Planning and Management in a blended distance mode via Moodle system (Almas et al., 2021).

Despite these efforts from some University institutions in Tanzania to embrace technology in teaching and learning, the

coronavirus pandemic exposed their unpreparedness to migrate all their courses online or in blended mode. Even Universities with a long experience of using technology for teaching and learning were scrambling to figure out how best to continue delivering their programmes during the pandemic and ended up closing the universities. Generally, universities still faced some challenges that hindered them from delivering their courses efficiently and effectively (Barakabitze et al., 2019).

The availability of reliable Internet to learners and instructors remained to be a challenge to the majority of University institutions in Tanzania (Mtebe et al., 2021). Similarly, there was a lack of pedagogical content knowledge amongst instructors needed for teaching online courses. There were also inadequate quality learning materials available for students' access during the COVID-19 pandemic. Finally, many universities had either outdated policies or do not have such policies that could facilitate the adoption and use of technologies for teaching and learning. Specifically, nearly half of surveyed 11 University institutions in Tanzania did not have e-Learning policies while the remaining ones had outdated policies (Mtebe & Raisamo, 2014).

Given these challenges, it was almost impossible for university institutions in Tanzania to offer courses online during the COVID-19 pandemic. However, the COVID-19 pandemic has created an atmosphere for appropriate adoption and use of ICT in enhancing the quality of on-campus delivery as well as online/blended delivery. It is an opportunity for university institutions in Tanzania to adopt policies to accelerate online/blending learning practices to improve access and equity while competing with universities across the region. Several universities across Africa, including the ones in countries such as Egypt, Ghana, South Africa, and Rwanda

among others have moved some of their courses to online platforms during and after the COVID-19 pandemic (Adotey, 2020). Universities in Tanzania cannot be left behind.

Given that online/blended mode is a new mode of delivery for the majority of university institutions in Tanzania, the need to provide minimum requirements and guidelines is important to ensure that these new forms of delivery support rather than reduce the value, quality and validity of higher education qualifications. Additionally, as the use of online technologies becomes more integrated into traditional teaching and learning, the need to recognise the outcomes of higher education regardless of delivery mode is a priority to TCU. TCU has in place the University Qualifications Framework (UQF) which advocates for change of curricula from teacher-centred to student-centred education approach to accommodate new and emerging methods for delivering courses. This has also been taken into consideration while developing these guidelines.

Universities have expressed interest to develop programmes that can either be offered fully online or in a mixed mode with traditional face-to-to-face systems. However, there are no guidelines in Tanzania that can be used to ensure the developed programmes meet the national, regional and international market requirements. These guidelines support the development of flexible learning opportunities using online/blended delivery methods, for access to higher education. They also ensure academic standards are maintained across all courses offered by universities in Tanzania

PURPOSE

The purpose of these guidelines is to provide guiding principles for the development, delivery and assessment of courses offered through online and/or blended modes in university institutions in Tanzania.

SCOPE

These guidelines shall apply for both undergraduate and postgraduate programmes unless stated otherwise in specific sections. The guidelines cover only online or blended delivery of programmes. Other issues not related to delivery such as admission, certification and graduation are covered by University regulations.

PRINCIPLES

The application of these guidelines should bear in mind the following principles related to university online course delivery:

1. The guidelines form a benchmark for assessing the quality of any online course offered by university institutions in Tanzania.
2. University institutions will apply these guidelines in the development, delivery and assessment of online courses with a view to ensuring enhanced quality student experience.
3. University institutions in Tanzania are primarily responsible for ensuring the quality of their online courses.
4. A best practice i.e., good "rule of thumb" for a university in assessing online courses is for university to work

through the course framework, learning activities and assessments as if they are stakeholders rather than universities offering the course.

5. The guidelines aim at meeting the needs and expectations of university education stakeholders (e.g., students, parents, universities, the Commission and the nation) regarding online course delivery among university institutions in Tanzania.

6. The guidelines promote the creativity and innovativeness of universities concerning the delivery of online courses and ultimately their academic function, institutional growth, diversification, and competitiveness.

7. The guidelines provide minimum parameters to be adhered to in the formulation and delivery of online courses. Universities may exceed these guidelines provided that the focus is on becoming more competitive in terms of quality and excellence.

8. The guidelines particularly complement the Standards and Guidelines for University Education in Tanzania, 2019.

DEFINITION OF KEY TERMS

Asynchronous courses: Courses where students are not required to participate at the same time as the instructor. These may be print-based courses or online courses using learning management systems.

Asynchronous method: The student accesses the online materials at his/her convenient time; the student chooses when to use the distance learning platform, usually through archived pre-recorded materials.

Authentication software: A software that is used in the process of recognising a user's identity. Different systems may require different types of credentials to ascertain a user's identity. The credential often takes the form of a password, which is a secret and known only to the individual and the system.

Blended learning: This is a style of education in which students learn via online media as well as traditional face-to-face teaching. This method integrates face-to-face instruction with distance learning.

Blended/hybrid courses: These are courses designed to combine both online and face-to-face teaching in any combination.

Computer-supported learning (CSL): In the CSL environment, the terms e-learning, online learning, distance education or distance learning, and web-based learning are often used interchangeably.

Distance education courses: These are courses where no classes are held on campus – all instruction is conducted at a distance. Distance education courses may use a variety of

delivery methods, such as video/audio conferencing and those which are internet or print-based.

E-learning: Predominantly entails teaching or learning activities involving computers and interactive networks, i.e. via the internet and/or intranets.

E-resources: Electronic Materials in digital format accessible electronically.

Face-to-face learning: Learning that is conducted in a classroom or practical room where a lecturer interacts directly with students daily as per the allocated timetable.

Formative assessment: Formative assessment refers to a wide variety of methods that teachers use to conduct in-process evaluations of student comprehension, learning needs, and academic progress during a lesson, unit, or course

Kbps – "Kilobits per second" is how we gauge internet speeds; how much data can be transferred each second in terms of kilobits.

Massive open online courses (MOOC): Online courses that are designed for large numbers of participants, often offered for free and without qualifications. They are distinguished from OER in that they offer a full course experience and content that is not usually free to reuse.

Mbps – "Megabits per second" is how we gauge internet speeds. This number represents the bandwidth of an internet connection, which is how much data can be transferred each second.

Mobile Learning: Refers to the use of mobile devices in the teaching-learning process (m-learning). This type of learning entails the delivery of electronic learning material through mobile wireless devices both in verbal and/or visual format.

These devices include, among others, mobile phones, iPods, personal digital assistants (PDAs), and palmtop computers.

Online courses: A form of distance education where the primary delivery mechanism is the internet. These could be delivered synchronously. All instructions are conducted at a distance.

Online learning: Learning where a student and an instructor are being connected through the internet instead of being in a physical classroom.

Online programme: A fully credible programme that can be completed entirely by taking online courses without the need for any on-campus classes. These could be delivered synchronously or asynchronously.

Open educational resources (OER): Materials that are offered freely for use by teachers and learners, i.e., without charge and with few or no restrictions on how the material may be adapted and reused.

Platform: Particular technology that is used for online course delivery such as Google classroom, Zoom, WebEx, Microsoft teams and any other reliable platform.

Proctoring software: A software that is used to monitor online examinations. Online proctoring software helps test administrators create a secure testing environment by curbing instances of academic dishonesty. An ideal online proctoring software authenticates test-takers identity, invigilates their screens, behaviours and environment using an advanced Artificial Intelligence mechanism and ensures generating the most reliable exam result.

Similarity index: An index used by anti-plagiarism software to show the total percentage of text in an

assignment/document that has been matched to other sources.

Summative assessment: Evaluate student learning at the end of an instructional unit by comparing it against some standard or benchmark.

Synchronous method - The online or distance education that happens in real-time i.e. all learners learn at the same time, such as in a webinar session through Zoom, Skype, Microsoft Teams, Skype, CISCO WebX or other virtual meeting tools.

Synchronous online courses: Courses where students and instructors participate at the same time, but at separate locations other than an institutional campus. These courses may be delivered by video conferencing, web conferencing and audio conferencing.

Web-based learning: The delivery of learning materials and activities with a Web browser in a Web format. Additional media like CD-ROM can also be included. Web-based learning material is usually retrieved from a website by means of web browsing.

THE GUIDELINES

1 Programme and Course Delivery Mode

Universities applying to offer online/blended programmes shall be required to specify the expected learning outcomes (intended learning outcomes -ILOs) versus learning activities versus assessment procedures versus delivery mode as per the specific curriculum.

Universities applying to offer online/blended programmes shall be required to specify components of courses to be delivered online and those to be delivered on face-to-face modes.

Guidelines

1.1 Online and blended programmes curricula must follow the approval processes of the Universities and TCU.

1.2 For blended mode, Universities must indicate the online components and the associated delivery method (i.e., synchronous or asynchronous) learning or teaching methods (e.g., problem-based learning, competency learning, project-based learning, experiential learning, challenge-based learning, research-based learning, and flipping classroom) and the face-to-face components.

1.3 The definitions of blended and online programmes are based on the content that is offered online as shown in the Table 1.

Table 1: Definition of Online/blended/face to face courses

Proportion of Content Delivered Online	Type of Course	Typical Description
0%	Traditional	Course with no online technology used —content is delivered in face-to-face.
>0% and <100%	Blended	Course that blends online and face-to-face delivery. Some proportion of the content is delivered online.
100%	Online	A course where all of the content is delivered online. Typically have no face-to-face meetings.

1.4 Requirements for online/blended programmes (e.g., internships, specialised laboratory work, seminars, presentations, viva voce, supervision groups and individual assessments etc.) must be clearly stated.

1.5 To re-design existing face-to-face programmes into online/blended modes, guidelines 2.5.3 of the Standards and Guidelines for University Education in Tanzania (2019) shall apply.

1.6 Universities shall orient students to participate in online/blended learning before the commencement of studies.

1.7 Universities shall orient academic staff to participate in online/blended learning and teaching before the commencement of studies.

1.8 Universities shall allow room for a student to consent to attend training using either face-to-face or online/blended delivery methods.

2 Teaching and Facilitation

Whether the course is offered online or blended, Universities must recognise that academic members of staff require pedagogical and technical skills needed to teach well with technology.

Guidelines

2.1 Universities shall ensure that the academic staff involved in online teaching and learning have the required pedagogical skills to facilitate the process.

2.2 Universities shall ensure that the academic staff have the required technical skills to facilitate online teaching with technology.

2.3 Universities shall indicate teaching methodologies and the tools that will be used to facilitate teaching and learning in online/blended courses.

2.4 For Universities offering health-related programmes that require clinical rotation, selected hospitals must be accredited to offer online/blended teaching and learning.

3 Learning Resources

Universities should ensure that the developed learning resources meet the quality of courses delivered in online or

blended mode. The issues to be considered in learning resources are quality and accessibility.

3.1 Quality and Accessibility

Guidelines

3.1.1 Learning resources should be designed to accommodate the online components for blended or online courses. Materials designed for face-to-face delivery must be re-designed to fit the technology for online delivery.

3.1.2 Universities shall have a course development policy that addresses issues such as copyright, incentives, the peer review process, and any other related issues.

3.1.3 Every University shall ensure that learning resources incorporate multimedia elements (e.g., video, animations, simulations and audio) to meet different learning styles and provide diverse instructional opportunities.

3.1.4 Universities shall ensure that the learning resources are accessible on a variety of devices including mobile phones and tablets.

3.1.5 Universities shall Universities shall ensure that the students with special needs have full access to learning resources and appropriate assistive technologies.

3.2 Open Educational Resources and Massive Open Online Courses

Where the University uses Open Educational Resources (OER) and Massive Open Online Courses (MOOCs) the following guidelines shall apply:

3.2.1 Open Educational Resources

Guidelines

3.2.1.1 Universities shall have in place an Open Educational Resources (OER) policy that provides a clear vision for the internal reuse of developed learning resources and those adopted from OER depositories.

3.2.1.2 Every University shall ensure arrangements are in place for compliance with any legal, regulatory or statutory obligations required before adopting OER for its courses.

3.2.1.3 Universities are encouraged to adopt, as a default for all products produced through its various research and educational activities, a Creative Commons Attribution (CC BY) license to facilitate openness.

3.2.1.4 Each University is encouraged to set up an open repository for sharing of OER developed in the University.

3.2.1.5 Universities shall put in place mechanisms for evaluating the quality of OER used in their courses. Similar mechanisms shall apply when prescribing online textbooks, journals and other relevant learning resources.

3.2.2 Massive Open Online Courses

Guidelines

3.2.2.1 Universities shall have MOOCs policy that provides a clear vision for the integration of MOOCs in online and blended learning courses.

3.2.2.2 Every University shall ensure that arrangements are in place for compliance with any legal, regulatory or statutory obligations required before adopting MOOCs for its courses.

3.2.2.3 Universities shall put in place mechanisms for evaluating the quality of MOOCs used in courses. Similar mechanisms shall apply when prescribing online textbooks, journals and other relevant learning resources.

4 Human Resources

Universities shall have appropriate guidelines that ensure the recruitment of an adequate number of academically and professionally qualified staff to administer and manage the programmes. The issues to be considered shall include the staffing requirement and capacity building.

Guidelines

4.1 University staff involved in facilitating online courses shall have pedagogical skills to develop learning resources.

4.2 Every University shall have academic staff with technical skills to be able to use selected technologies for online and or blended learning.

4.3 Each University shall have a technical staff with online programme management skills which must include instructional designers, media experts, ICT personnel and curricula experts.

4.4 Universities shall have a clear policy to promote life-long learning to staff on new and emerging online teaching and learning technologies.

4.5 University shall ensure that the teaching staff-student ratio complies with the existing workload guidelines.

5 Technology

The introduction of online or blended courses imposes new requirements for the University to provide ICT infrastructure designed to facilitate the delivery of such courses. The necessary ICT infrastructure must be sufficiently resourced to enable the accessible and reliable provision of online and blended courses for all students regardless of location. The main issues here are access to technology; a Learning Management system and multi-media facilities.

5.1 Access to Technology

Guidelines

5.1.1 Universities shall ensure that students and all staff have speedy and reliable Internet connectivity such as via a robust Local Area Network (LAN) and/or wireless hotspots. The speed depends on the online activities.

i) Browsing and online testing 100kbps per student,

ii) Light video collaboration and light streaming video 800 kbps per student,

iii) Heavy video collaboration and streaming and online educational gaming and remote instruction 1mpbs per student are recommended by Federal Communication Commission (FCC), USA.

5.1.2 Each University shall ensure that all staff have access to at least one of the following computing devices: desktop, laptop, tablet, smartphone.

5.1.3 Every University shall ensure that students have access to at least one of the following computing devices before they offer courses in blended and online modes: desktop, laptops, tablets, Smartphone.

5.2 Learning Management System

Guidelines

5.2.1 Universities shall implement the Learning Management System and host it in a place where it is accessible 24 hours a day. The system shall have the following features:

5.2.1.1 Facilitate online interactions between academic staff and students as well as among students.

5.2.1.2 Support various assessment features such as those of designing and administering assignments and tests, and recording of student activities and performances.

5.2.1.3 Responsive to the user interface in any device including small-screen devices (such as mobile phones, tablets etc.).

5.2.1.4 Accessible to common operating systems including Windows, Linus, IOS and Android mobile apps.

5.2.1.5 Facilitate learning, communication, and collaborative learning activities.

5.2.1.6 Have learning analytics tools that help in tracking students' usage and behaviour in a bid to enable administrators to generate various reports for instructors and managerial decision making.

5.2.1.7 The system should be integrated with existing systems to share data within the University (e.g., its

student registration system, plagiarism system, examination system).

5.2.1.8 The system should allow access to the online environment when connectivity is not available and synchronise later when connectivity is available.

5.2.1.9 The system should provide a dashboard with a clear understanding of where learners have reached with respect to the desired learning outcomes and what they need to do to achieve these outcomes.

5.2.1.10 University shall ensure compliance with Government Policies with respect to data protection and the privacy of students.

5.3 Multimedia Facilities

Guidelines

5.3.1 Where video conferencing facilities are needed, Universities shall use affordable and accessible facilities for online delivery as well as research activities (e.g., viva voice and presentations).

5.3.2 The video conferencing technologies shall be approved by the Senate and shall include online platforms (e.g., Google Classroom, Zoom, Skype and WhatsApp.).

5.3.3 Universities shall ensure arrangements are in place for compliance with any legal, regulatory or statutory obligations required before video conference facilities for facilitating course delivery are used.

5.3.4 Each University may establish a Multimedia studio for designing and recording online courses.

5.3.5 Universities shall ensure availability of power supply through backup systems such as standby generators, Uninterruptible Power Supply (UPS), Solar power etc.

6 Students Assessment

In addition to Standards and Guidelines for Student Assessment provided by TCU (2019), universities offering online courses, if decide to run online assessment, shall design an assessment system that will cater for quality online assessment.

Guidelines

6.1 Universities shall specify Senate-approved online platforms to be employed for coursework assessment (e.g., Moodle, Zoom, Google classroom, Skype, Emails, or WhatsApp and/or other Computer Assisted Test modes).

6.2 Each University shall have clear guidelines defining online coursework assessment options (e.g., one or a combination of the following: Test, Assignment, Quiz, Term Paper etc.).

6.3 Every University shall include components of online programmes in their examination regulations that will be brought to the attention of the student during admission.

6.4 For the summative assessment, universities shall have authentication software, similarity index and proctoring software.

6.5 Online summative assessment systems shall get special approval from the Senate and TCU.

6.6 Universities shall ensure that assessed components of online/blended courses (knowledge, skills and competencies) are made explicit to students.

6.7 Every University shall institute and facilitate efficient mechanisms for marking and moderating online examinations.

6.8 Universities must ensure that web pages that contain online assessment activities follow best-practice web design principles.

6.9 The performance criteria for online assessment tasks shall be made explicit by the use of rubrics or assessment standards.

6.10 Universities shall ensure the online system provides feedback that is timely, sufficiently detailed and constructive to both students and staff.

6.11 Universities shall ensure that the online examination system includes the following features:

a) Reliable examination storage systems including location, duration of storage, capacity and backup mechanisms.

b) Allows multiple attempts of examination.

c) Well defined security mechanism to protect examination leakage is in place e.g., question randomisation.

d) Allows for multimedia inputs.

e) The system is capable of providing alerts to users about system activities that needs user attention.

f) Allows multi-format outputs reports.

g) Incorporates live monitoring system, image capture and video recording in the examination room.

h) Presence of Software that checks for plagiarism.

6.12 Universities should indicate clearly the range of questions and examination types to be run suitable for online assessment.

6.13 Universities shall describe the examination registration system and process.

6.14 Universities shall devise invigilation mechanisms that will ensure there is no examination leakage/cheating.

6.15 Universities shall set clear governing rules and regulations to govern online examination sessions.

6.16 Universities shall clearly define modes through which examination results will be delivered including roles played by relevant bodies within respective Universities.

7 Support Services

To ensure the quality of learning, students and academic staff need to have adequate and reliable technical support.

Guidelines

7.1 Universities shall put in place a Technical Support Help Desk allowing students to call, send emails or chat synchronously with technical personnel and helper leaner to be integrated into online/blended learning.

7.2 Each University shall make sure that advisory services are factored into the overall online programme through the office responsible for academic matters.

7.3 Every University shall provide access to students with an online advising platform whereby all students should be assigned with the academic advisor.

7.4 For universities wishing to establish study centres, the standards and guidelines shall be followed as stipulated

in standard 7.4 of Standards and Guidelines for University Education in Tanzania (2019).

7.5 Universities shall establish or have access to the Instructional Development Unit (IDU) with the following features:

7.5.1 Equipped with technical staff with skills for online programmes development and delivery.

7.5.2 Has facilities for recording online courses including camera; Computer with graphics, video conferencing facilities.

7.5.3 Equipped with software to be used in online teaching and learning.

7.6 Universities shall establish a digital library that is subscribed to the latest online databases for various resources.

7.7 Universities shall ensure that the digital library is accessible to staff and students within and outside the university campus.

7.8 Universities shall put in place complaint procedures to handle student's matters related to online teaching and learning.

8 Monitoring and Evaluation

Universities are required to monitor and evaluate the use of all systems and practices contributing to their learners' experiences, to ensure that practice, policy and strategy meet the intended benefits.

Guidelines

8.1 Every University shall ensure that quality assurance processes for online and blended courses are integrated into established internal quality frameworks.

8.2 Universities shall put in place mechanisms for monitoring the teaching process of online and blended courses and evaluate them at the end of each semester.

8.3 Each University shall put in place a mechanism for monitoring student activities in the Learning Management System.

8.4 Universities shall conduct regular surveys with regards to student's experience on online or blended courses.

8.5 Universities shall monitor and evaluate the usage of the Learning Management System.

8.6 The Standards and Guidelines for reviewing conventional programmes shall also apply for online and blended programmes.

8.6.1 Universities shall develop mechanisms to evaluate, monitor, and review the quality of learning resources developed before they are made accessible to students.

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