GLORIOUS POLYTECHNIC COLLEGE

INFORMATION AND COMMUNICATION TECHNOLOGY POLICY

ZANZIBAR, 2023

TABLE OF CONTENTS

FOREWORD

The Glorious Polytechnic College (GPC) has developed its first Information and Communication Technology Policy.

Information and Communication Technology (ICT) is an extensional term for information technology (IT) that stresses the role of unified communication and the integration of telecommunications and computers, as well as necessary enterprise software, middleware, storage and audio-visual, that enable users to access, store, transmit, understand and manipulate information.

ICT extends and strengthens the instructional strategies used by tutors; supports the use of more advanced research methods; enables tutors and learners to access educational resources from around the world and helps prepare students for new forms of research and employment by promoting the development of 21st century.

ICT is essential in facilitating research, curricular development and implementation, administration and management at Higher Learning Institutions (HLIs). Additionally, ICT can help to make more complex topics easier to understand by providing visual and audio feedback.

This Policy is a set of guidelines and statements desired to position GPC at the widespread level for which ICT will be implemented with concerted efforts for health, business and vocational education and training.

Among the target groups for ICT Policy into the GPC are the students, staff, affiliates and visitors. This diverse background of target groups is a point of strength to the GPC.

GPC is an ideal place for the intensive multi-disciplinary collaborations called for by today's scientific and clinical community. Its relatively small size and extra ordinary faculty contribute to an inherently interactive place. At GPC, professionals are already exchanging ideas and expertise with research scientists and clinicians to advance scientific understanding and translate new knowledge into novel clinical treatments and patient care. However, the Clinical Centre leaders realize that change is required in order to foster an institutional environment that supports and encourages this type of interaction.

The GPC embraces inter professional approaches and brings together educators from all disciplines. We are a community of educators and learners; multiple networks of passionate and engaged people with diverse knowledge and skills who teach, coach and mentor individuals and

groups to grow and thrive professionally.

We offer programmes and services that support our hospital community to create, deliver and evaluate education and training. Our unique services are also offered to external partners who wish to participate in our exceptional educational offerings or to those looking for customized learning experiences.

It is hoped that this Policy and Strategies will be read and understood by all staff and management of the GPC, so that our clients will receive the best service, making our College a model to compete with other institutions.

Eng. Dr. Idrissa M. Hija

Principal

Glorious Polytechnic College.

ACKNOWLEDGEMENTS

The development of this Information and Communication Technology Policy was only possible through hard work and dedication of the core team, which was co-chaired by Eng. Dr. Idrissa M. Hija and Mr. Abdullatif Hussein Pandu. I wish to acknowledge the team's effort particularly its willingness to work beyond official hours. No words can express our gratitude to the management and all other staff of the College, who in one way or the other, gave suggestions and ideas that helped to shape the Policy to their present state.

I also wish to acknowledge Members of College Governing Board and many others who contributed in one way or another to bring this Policy into its present form. It is my sincere hope that this Policy shall serve as a useful guide to staff and students of the Glorious Polytechnic College.

Dr. Mohamed S. Jiddawi

Chairperson

Governing Board

Glorious Polytechnic College

Zanzibar.

1.0 BACKGROUND TO GLORIOUS POLYTECHNIC COLLEGE

1.1 Establishment of the College

Glorious Polytechnic College (GPC) is a private Institution owned by the Glorious Board of Directors and operates under the Governing Board was established in 2021 and became operational on 3rd July 2022.

GPC is an ideal place for the intensive multi-disciplinary collaborations called for by today's scientific and clinical community. Its relatively small size and extraordinary faculty contribute to an inherently interactive place. At GPC, engineers are already exchanging ideas and expertise with research scientists and clinicians to advance scientific understanding and translate new knowledge into novel clinical treatments and patient care. However, the clinical centre leaders realize that change is required in order to foster an institutional environment that supports and encourages this type of interaction.

The GPC connects people, spaces and learning products in multiple ways. Through virtual communities and physical space, we promote excellence in education and learning. GPC is creative and strive for excellence in everything that we do. We seek new partnerships and promote networks that enhance learning, advance education scholarship, improve knowledge translation and offer creative education solutions and services to ultimately improve outcomes for students and community.

This College entrusted with the responsibility of preserving, enhancing, transmitting and disseminating knowledge in Health and Allied Science Studies, Vocational Training and Business Administration by teaching, conducting research and consultancy in various fields in the country. The College was registered by Vocational Training Authority (VTA) of Zanzibar in March, 2022 with Registration Number **VTC/2022/04/00087/1** and fully registered by National Council for Technical and Vocational Education and Training (NACTVET) in February, 2023 with Registration Number **REG/NACTVET/0728**.

1.2 Administrative Set-Up

The GPC is administered by an independent Policy making Governing Board, capable of reflecting the public interest in its activities and decisions. The GB delegates its day-to-day activities and decision to the College for implementation. The entrusted management and administrative structure comprise the following three Top Executive Officers:

(a) Principal;

(b) Deputy Principal (Academic, Research& Consultancy);

(c) Deputy Principal (Finance, Planning & Administration).

The Principal is assisted by Deputy Principal for Academics, Research and Consultancy and Deputy Principal for Finance, Planning and Administration. Holders of the three top positions are academicians to ensure that core functions of a training institution which are training, research and

consultancy are efficiently and effectively carried GPC.

1.3 Governing Board Committees

Internally, the Governing Board has established Standing Committees, which support GB on various matters related to the College. The established Committees are the Academic Committee and Finance and Administration Committee.

1.4 Strategic Plan

Given its fast-growing rate, the GPC felt necessary to establish its Strategic Plan so as to enable the optimum utilization of available resources. Therefore, since 2022, the Glorious Polytechnic College started implementing 2022 – 2027 Strategic Plan. During development of the Strategic Plan, priority needs were identified and strategies meant to address the problems were outlined.

1.5 Programmes Offered

The College is entrusted with the responsibility of preserving, enhancing, transmitting and disseminating knowledge in Vocational Training, Business and Health and Allied Science Studies by teaching, conducting research and consultancy in various fields in the country.

GPC's origin stems from the inadequate training institutions and insufficient capacity to enrol in sciences (health), economic (business, tourism), social courses and vocational training. This need was mainly communicated through observations, word of mouth and a mini survey in the different Regions of Zanzibar.

Considering the need for these offering and other related courses, GPC seeks to serve a broader market need for such services. GPC is in its start-up stages. In early stage there will be introduction of core offerings which will then create new and related courses, defining the legal structure and conducting initial assessments of market demand for other products. These initial assessments were also served as the initial business development activities whereby client base was established.

2.0 OVERVIEW

2.1 Background to Information and Communication Technology (ICT)

 ICT is central in facilitating research, curricular development and implementation, administration and management at Higher Learning and Tertiary Institutions (HLTIs). Accelerated developments in ICT have created new opportunities for HLTIs to make optimal use of these developments. The GPC like other HETIs is challenged to appropriately deploy ICT infrastructure, systems and services to achieve its core functions. For GPC to attain its vision of *"becoming the training institution of excellence in East Africa and beyond", it will have to adopt and implement extensive use of ICT to perform the College's core functions which include teaching, research and consultancy.

GPC foresees the need to expand student enrolment and academic programmes to meet the national health human resource needs. However, this expansion in enrolment and academic programs needs to be matched with the expansion of existing facilities and resources at GPC. Use of ICT provides opportunities for the College to cope with the challenges of training increased numbers of

competent health professionals in this era of knowledge society. It is therefore convincing for GPC to attain the appropriate and adequate human resource and infrastructure to facilitate optimal deployment of ICT services to enable national economic growththrough improved outputs of GPC core objectives. Furthermore, the College has to ensure that its ICT resources and facilities are used exclusively for the purposes for which they were intended.Thus, formulation of this Policy and procedures is to guide proper planning, development, deployment and use of ICT services at the College. The context of this Policy and procedures originates from other existing Policies and strategies at GPC including GPC Five Years Strategic Plan of 2022 to 2027, Examinations Policy (2023), Quality Assurance Policy (2023), Intellectual Property Rights Policy (2023), Admission and Registration Policy (2023), Library Policy (2023) and Research Policy (2023).

2.2 Rationale

GPC needs to meet its objective of improving its services and increasing productivity by investing on new technologies. The College has been investing in ICT to facilitate its core functions of teaching, research and public services so as to attain its strategic goals. The College operations are increasingly depending on ICT, making the College vulnerable to ICT related risks. In this regard, it is obvious that, GPC needs to develop and operationalize comprehensive ICT Policy to direct ICT adoption and usage within the College. That is the reason why, GPC has developed its first ICT Policy.

2.3 Purpose and Context

This document provides the highest-level ICT directives for the GPC for the main purpose to ensure that GPC's ICT related investment, operations and maintenance processes and usage are well directed while setting its core functions. The Policy is based on standard Policy framework issued by GPC and had taken into consideration other existing HLTIs level policies and other National Policies for the purpose of ensuring institutional-wise and national Policy linkages.

2.4 Scope of the ICT Policy

This Policy is applicable to all GPC's staff and students, visitors as well as providers offering services to GPC, all users of ICT equipment owned or leased by the College as well as all equipment connected to GPC's ICT related infrastructure. In addition,the Policy applies to all GPC's ICT related resources and services. This is a College wide ICT Policy applicable to all campuses and centres as well as student hostels.

2.5 Relevant Government Policies and Legislations

The ICT Policy and procedures is in-line with the following National Frameworks and key Policy documents:

i. The Tanzania's National ICT Policy of 2016, Zanzibar ICT Policy of which emphasizes the use of ICT to enhance and improve the quality of delivery of education in all areas;

ii. Zanzibar ICT Policy of 2013, which underlines the facilitation of sustainable economic growth and development and poverty eradication through productive and effective technology;

iii. Zanzibar ICT Policy in Education, which emphasizes the need for ICT integration in the educational development in Zanzibar;

iv. The Education and Training Policy (2014) that emphasizes the importance of the application of ICT in the Universities to improve teaching and learning and other related functions;

v. Tanzania Cybercrimes Act, 2015.

2.6 Policy Objectives and Outcomes

This document provides the highest-level ICT directives on management, deployment and use ICT to ensure that GPC's ICT related investment, operations and maintenance processes are cost-effective and efficient for the improvement of quality research, teaching and learning, administration and management related activities. The specific objectives of this Policy are;

i. To provide equitable access to ICT services to all members of the GPC community;

ii. To strengthen and promote the use of ICT in GPC core functions;

iii. To ensure the members of the College use ICT facilities and services in an appropriate and responsible manner;

iv. To facilitate strengthening of ICT infrastructure to support and enhance teaching and learning and public service;

v. To strengthen capacity to handle ICT security issues related to privacy, cyber-crime, ethical and moral conducts;

vi. To establish partnership on ICT with other institutions within and outside the country;

vii. To enhance the existing teaching and learning partnership between GPC and other Institutions.

It is expected that the following outcomes will be attained upon fully implementation of the Policy.

i. Establishment of appropriately-equipped and functional GPC ICT facilities;

ii. Empowered GPC community in the optimal and ethical use of ICT facilities and services for enhanced output of the College core functions;

iii. Expanded student enrolment and academic programmes through distance education and e-learning programmes;

iv. Improved efficiency and effectiveness of administration and management related activities at GPC;

v. Enhanced student learning through appropriate use of ICT for active, social and participatory learning, extended discussions and learning communities;

vi. Increased capacity for research in e-learning technologies and their applications;

vii. Enhanced capacity for income generation for the College;

viii. Improved quality and accessibility of research outputs, delivery of educational materials and community services;

ix. Improved visibility and ranking of the College profile nationally, regionally and globally.

2.7 Definition of Terms

i. **Antivirus** is a protective software designed to defend the computer against malicious software. Malicious software, or "malware" includes: viruses, Trojans, key loggers, hijackers, dealers, and any other code that damages or steals the computer contents.

ii. **Bandwidth** is the amount of data that can be transferred over a network in a given time period (usually a second). Bandwidth is usually expressed in bits per second (bps), or as some larger denomination of bits, such as Megabits per second (Mbps), or Gigabits/second (Gbps).

iii. **Distance learning** is defined as provision of learning opportunities to learners situated awayfrom a College campus.

iv. **E-learning** is use of ICTs to enhance and support teaching and learning. This definition encompasses e-learning which supports teaching and learning through the provision of online resources to support classroom-based learning, distance learning, and distributed learning models.

v. **Electronic mail** is a system of world-wide electronic communication in which a computer user can compose a message at one terminal that can be regenerated at the recipient's terminal when the recipient logs in.

vi. **Firewall** is a set of related programmes, located at a network gateway server that protects the resources of a private network from users from other networks. The integrity of this protective barrier depends on the effective deployment, configuration and capabilities of individual firewall programmes.

vii. **Free and open-source software (F/OSS, FOSS)** is a software that is, liberally licensed to grant the right of users to use, study, change, and improve its design through the availability of its source code.

viii. **Hardware** is a comprehensive term for all of the physical parts of a computer, as distinguishedfrom the data it contains or operates on, and the software that provides instructions for the hardware to accomplish tasks.

ix. **ICT Assets/Resources** cover all ICT facilities including the College and hospital network, all computers, computing laboratories, all associated networks in classrooms, lecture theatres and video conferencing rooms across the College, internet access both wired and wireless, email, hardware, data storage, computer accounts, software (both proprietary and thosedeveloped by the College), audio visual system including telephone services and voicemail.

x. **Information and Communication Technology** refers to all those instruments, modes, and means through which information or data is captured, processed, stored and transmitted or communicated from one person to another or from one place to another place.

xi. **Information management systems** is a computer programme (consisting of data storage systems, software and services, providing automated networked storage solutions) that lets one or more computer users create and access data in a database, having extensive transaction processing capabilities.

xii. **Institutional repository** is an online locus for collecting, preserving, and dissemination in digital form of the intellectual output of an institution, particularly a research institution.

xiii. **Internet** is a computer network consisting of worldwide interconnected networks of computers that use the standard Internet Protocol (TCP/IP) to facilitate data transmission and exchange,

xiv. **Intranet** is a private computer network that uses Internet Protocol technologies to securely share any part of an organization's information or operational systems within that organization, often protected from internet traffic.

xv. **Online learning** means that the whole course is conducted online and students can follow their courses from any geographical location.

xvi. **Proprietary software** is a, "computer software licensed under exclusive legal rights of its owner"

xvii. **Software** is a collection of various kinds of programs that are used to operate computers and related devices.

3.0 ISSUES, POLICY STATEMENTS AND STRATEGIES

The Policy statements are presented in thirteen thematic Policy issues followed by the strategies under each Policy statement.

3.1 Issue: ICT Governance and Management

ICT Governance is an integral part of College governance and consists of the leadership, organizational structures and processes that ensure that the organization's ICT sustains and extends the organization's strategies and objectives.

Effective ICT Governance provides a conducive environment for the alignment of all ICT investments in a rationalized manner that is aligned towards enabling the College meet its goals and objectives. This also contributes to the attainment of value for money, management of risks and effective ICT utilization. In addition, to accelerate achievement of College mission, ICT services need to be given support at the highest level by the College management through resource allocation and the ICT Unit needs to engage in resource mobilization activities to supplement the limited resources received from the government.

Policy Statement 1

The College shall give the highest priority to ICT, and enforce its application cohesively in entirely its core functions.

Strategies – GPC:

   i.   Impose the use of ICT in all its administrative and management functions as well as in implementing GPC curricular;

   ii. Ensure availability of adequate and skilled ICT human resources in terms of technical, academic and administrative staff;

   iii. Ensure that GPC becomes a centre for creativity and generation of ICT related knowledge, and software to drive it's academic, administrative and management functions;

   iv. Ensure that staff and students have access to ICT facilities to facilitate their day-to-day activities;

   v.   Institute measures to ensure that Department, Units and research projects consults ICTU before undertaking any ICT initiative for the sake of harmonizing efforts and optimizing resources;

   vi. Ensure availability of appropriate software and hardware to meet the needs of the College community.

Strategies – ICTU:

   i.   Monitor development and innovations in ICT sector, in order to advise on implementation of innovative and sustainable ICT solutions aligned to the College's strategic goals;

   ii. Undertake advocacy for the adoption and utilization of ICT within the College;

   iii. Promote effective and appropriate utilization of ICT facilities and services by staff, students and other authorized users;

   iv. Ensure that ICT Risk Management periodically done, where ICT risk assessment is conducted and reviewed, likelihood and occurrence identified, mitigation strategy established and risks treated, accepted, transferred or avoided;

   v.   Establish mechanism for evaluating and monitoring ICT services (e.g. Service availability, staff satisfaction/feedback system) and its compliance;

   vi. Develop guidelines on disciplinary actions for violation of this ICT Policy.

Strategies - Heads of Departments/Units and Research Units:

   i.   Integrate ICTs into their activities;

   ii. Implement and ensure compliance to the Unit specific components of the ICT Policy and other related strategies; and

   iii. Act as active participants during the periodic stakeholder consultations towards supporting

and facilitating the effective implementation of the ICT Policy and other related strategies.

Policy Statement 2

The College shall ensure availability of adequate financial resources to acquire and manage ICT facilities and services.

Strategies - GPC:

i. Include in its annual budget adequate funds to sustain ICT human and physical software resources.

Strategies - ICTU:

i. Assess actual ICT resources needed at the College;

ii. Prepare a predictable annual ICT budget for regular acquisition of appropriate ICT resources and services;

iii. Pursue innovative ways to mobilize resources for maintaining ICT services;

iv. Seek partnerships and collaborations as a way to access resources for financing ICT services and facilities;

v. Develop short- and long-term ICT courses and execute other activities for purposes ofmobilizing additional resources to sustain ICT services;

vi. Solicit funds by writing competitive fundable proposals;

vii. Prepare and report its income generating activities on quarterly basis or when deemed necessary.

Policy Statement 3

The College shall utilize the existing partnerships and seek new partners to regularly improve GPC ICT infrastructure and services.

Strategies – GPC:

i. Promote the use of innovative approaches to seek resources for maintaining ICT infrastructure and facilities;

ii. Promote collaboration with both local and international partners in investments to improve ICT infrastructure.

Policy Statement 4

The GPC shall monitor and evaluate all usage of ICT facilities, services and contents toensure applicability, safety and security.

Strategies - ICTU:

i. Monitor ICT resources and e-content to support GPC core functions, operational maintenance, auditing, security and investigative activities continuously;

ii. Conduct internal and external audits of all ICT facilities and services together as part of its legal requirements and business processes.

Policy Statement 5

GPC shall ensure all users are aware of the provisions set forth in the Policy document for compliance.

Strategies - ICTU:

i. Prepare leaflets summarizing key Policy provisions targeting end users;

ii. Publicize this Policy to all GPC Community through GPC website, brochures andother communication media.

3.2 Issue: ICT Infrastructure and Internet Services

ICT infrastructure is the backbone for supporting the College business operations by enabling information exchange and providing secure access to different applications. This consists of all hardware devices such as network devices, servers, security devices, workstations, desktop and laptop computers, storage, back-up, operating facilities and supporting platforms like operating systems and databases.

The objective of managing ICT infrastructures is to ensure that the College's ICT infrastructures operations are optimized in order to deliver higher level service quality and support business-relevant operations based on ICT planning and management best practices.

Policy Statement 6

GPC shall establish and improve its college-wide data communication network and availability of appropriate hardware and software in order to meet the needs of the College Community.

Strategies - ICTU:

i. Facilitate the development of a data communication infrastructure to link up with its Department and Units;

ii. Ensure availability of appropriate software and hardware to meet the needs of staff and students;

iii. Ensure availability of alternative sources of power for smooth running of ICT services;

iv. Establish common set of standards for hardware, system architecture, and software for use at the College;

v. Encourage the development and deployment of localized software and applications developed to meet Zanzibar contexts;

vi. Collaborate with relevant institutions to examine and implement optimal configuration and utilization of ICT to perform GPC core functions, with focus on equitable access and quality;

vii. Ensure that the College libraries have adequate ICT to effectively act as points of dissemination of ICT-based information resources;

viii. Safeguard the appropriate use of software by the various Departments and Units;

ix. Establish a remote server system for real time storage of GPC data and documents;

x. Establish an Active Directory Server (ADS) for GPC staff and students to enhance real time storage of data;

xi. Establish modalities for sharing of ICT resources at the College, in order to reduce costs and avoid duplication of efforts;

xii. Ensure all time availability of wireless access to internet for enabling staff and students to access digital resources and services.

Policy statement 7

GPC shall ensure that there is sufficient bandwidth to meet the requirements of the entire College.

Strategies ICTU:

i. Ensure that all ISPs engaged by the College guarantee availability of adequate so that internet connectivity is available at all times and on the agreed bandwidth;

ii. Restrict bandwidth usage to ensure that access to critical information, research and online educational resources are always optimal;

iii. Explore viable strategies to reduce bandwidth costs for the College;

iv. Ensure that the bandwidth is restricted from unauthorized persons and services;

v. Monitor the bandwidth usage through management of network devices to ensure optimal functioning and security;

vi. Perform periodic assessment of bandwidth requirements to meet needs of the College.

Policy Statement 8

The College shall ensure availability of a secure and reliable email system and provide each student and staff an email address under the College domain name structure.

Strategies – ICTU:

i. Develop email communications standard operating procedures for College staff and students;

ii. Ensure that the e-mail system is protected from both physical and non-physical threats;

iii. Provide mechanisms to control the amount of unsolicited emails that users receive;

iv. Provide mechanisms to intercept emails that contains viruses.

Policy Statement 9

GPC shall regularly update its website and have contents that conforms to its mission objectives and functions.

Strategies - ICTU:

i. Ensure the College website is updated regularly;

ii. Ensure accessibility of the website within and outside the College network infrastructure;

iii. Provide a mechanism to ensure that intranet services are accessible only to the College community;

iv. Prepare monthly, quarterly and annual reports summarizing website updates done per specific unit.

Strategies - Heads of Departments/Units/Research Units/Projects:

i. Prepare and submit to ICTU web contents and information of their respective Departments/Units for uploading onto the College website;

ii. Review and update contents of the College website regularly;

iii. Report in writing to ICTU any anomalies/problems encountered in accessing the College website and their respective websites;

iv. Appoint focal point responsible with updating website contents by providing content to website designated officer from ICT Unit.

Policy Statement 10

GPC shall ensure that systems are deployed and hosted in a secured Data Centre to enhance availability and accessibility.

Strategies – ICTU:

i. Ensure that no entity within College is allowed to host its website or web pages outside the College's web server;

ii. Assess the requirement for Hosting Critical ICT Systems;

iii. Advice the management on where to host ICT systems, taking into consideration of Government issued guidelines.

Policy Statement 11

GPC shall ensure that all buildings used for academic and administrative purposes are provided with access to the College's interconnected ICT facilities through the provision of data and telephone points.

Strategies – Estate Officer

i. Actively involve ICTU in the review and approval of specifications of ICT infrastructure and systems for new buildings and renovations;

ii.   Consult ICTU in writing before embarking on renovation of a buildings so that ICT facilities and systems are securely remove or relocated without affecting other systems/users.

3.3 Issue: ICT Services and Access Management

The College shall ensure the provision of the ICT Services within the College as well as define a ICTU as the central coordination point of contact for all ICT support. The ICT support shall cater for all areas under the College network, computing devices, hardware, software and implementation of ICT initiatives, projects and programmes.

The objective is to define and implement an effective ICT Service Management and Support approach that is aligned to the Vision, Mission and the Strategic Plan of the College, where ICT is identified amongst the key components in the support of the College's goals and objectives. This will eventually ensure that the use of College's ICT facilities and services is appropriate to avoid misuse of the facilities and services by authorized users as well as enable the monitoring and improvement of service quality through the effective application of processes.

Policy Statement 12

GPC shall provide access to ICT resources and services to GPC community at deferent levels.

Strategies - ICTU:

i.   Ensure that standard operating procedures for access and use of ICT services are in place and are well monitored;

ii.   Ensure ICT services for personal use are well monitored to minimize disruption of College core business.

Policy Statement 13

GPC shall ensure proper use of ICT resources and services by GPC community at all levels in a cost-effective manner.

Strategies - ICTU:

i.   Promote shared use rather than duplication of ICT facilities;

ii.   Ensure ICT use is in accordance with Government issued Guidelines and Circulars;

iii.   Ensure all software installed on GPC systems (including all commercial and shareware products) are used in compliance with all applicable licenses, notices, contracts, and agreements;

iv.   Ensure that all authorized users have appropriate access privilege level that is protected;

v.   Monitor users to ensure that ICT resources are used primarily to perform College core functions;

vi.   Forbid the engagement in any activity that is illegal under Zanzibar, Tanzanian or International Laws while utilizing the College ICT resources.

Strategies – Department of Finance, Planning and Administration (DFPA):

i. Inform ICTU on any changes to staff engagement including hiring, change of duty status/location, suspension or termination, retirement;

ii. Ensure t h a t staff have their clearance forms signed by ICTU indicating that access to facilities/resources are revoked.

Strategies – Users:

i. Ensure lawful use of computer data and equipment while accessing GPC services;

ii. Ensure all access rights granted to the user and not transferred to any person without authorisation from ICTU;

iii. Ensure that credential given to access GPC services are not used after the expiration of time or privileges granted to access the computer system;

iv. Return organisation Equipment after the completion or termination of contract agreement.

Policy Statement 14

GPC shall provide all authorized ICT users with timely and appropriate technical support services.

Strategies - ICTU

i. Establish a single point of contact, where requests will be recorded, escalated to the technical staff, resolved and closed to ensure restoration of normal service operations as quickly as possible;

ii. Ensure the technical staff are responsible for ICT user support in the management, control, use, maintenance and repair of ICT facilities;

iii. Provide online support on basic ICT issues, advice and assistance on technical problems faced by users;

iv. Establish an online support system using "issue tracker" for handling technical problems on ICT;

v. Provide technical support in line with approved ICT procedures for any system, service, device interruption or break;

vi. Provide assistance and guidance towards compliance of ICT policies;

vii. Ensure that reports on service quality are reviewed periodically with customers along in order to determine things that could be added or changed to improve service delivery and support.

3.4 Issue: ICT Security and Business Continuity Management

ICT Security covers all the processes by which computer-based equipment, information and services are protected from unintended or unauthorized access, change or destruction throughout

an organization. The general objective of managing ICT Security is to provide GPC with information security mechanism to support the College to achieve its strategic goals based on best practices.

In addition, the College's business activities need not be interrupted by foreseen and unforeseen events (natural disasters, technological failures or human error) due to sensitivity of information and services provided to the general public and other institutions. For this to happen, Business Continuity Management need to be well planned and implemented to minimize the impact on business operation to an acceptable level and facilitate quick recovery of information systems. In this direction, Policy commitments are needed to ensure all strategic business entities are identified and secured to ensure continued provision of business services.

Policy Statement 15

GPC shall ensure that all ICT resources and services are maintained, controlled, protected and secured to enable the College functions run smoothly.

Strategies - DFPA

   i.   Develop ICT Security Policy that will ensure that:

      a. Each user respects the privacy and integrity of other users;

      b. No user views, copies, alters or destroys another person's electronic files;

      c. All College computing devices are protected against malicious software through the installation of antivirus and firewall software;

      d. System and network administrators respect the privacy of personal communications in all forms including telephone, electronic mail and file transfers;

      e. Information systems are designed, acquired and implemented with effective ICT security controls to safeguard the integrity, confidentiality and continual availability throughout the entire life cycle;

      f. ICT security risks are mitigated and controlled.

Strategies - The ICTU

   i.   Monitor the uses of ICT resources;

  ii.   Monitor users' accounts in order to maintain and protect the integrity, security and functionality of College ICT resources;

 iii.   Respect the privacy of personal communications in all forms including telephone, electronic mail and file transfers.

Policy Statement 16

GPC shall implement processes to ensure that services are available and accessible all the time.

Strategies - ICTU

  i. Develop Business Continuity and Service Recovery Plan;

 ii. Establish framework for building resilience and the capability for an effective response which safeguards the interests of the Authority and of its key stake holders;

iii. Implement systematic approach processes to manage risks on continuous basis;

iv. Conduct a business impact analysis to identify critical business functions to be supported by ICT;

 v. Ensure that a robust business continuity and service recovery plans are implemented and regularly reviewed and tested.

3.5 Issue: ICT Asset and Service Management

ICT Asset and Service Management involves activities for asset acquisition, storage, usage, maintenance and disposal as well as on how services are delivered. The assets include ICT hardware, software, data, system documentation, and storage media, supporting assets such as computer rooms, air conditioners and power backup systems.

Poor management of ICT systems and individual components can pose grave risks to the College staff and students. It can also lead to wastage of both physical and financial resources. Thus, there is a need to ensure that user departments' ICT assets and services and properly acquired, maintained to guarantee quality, value for money and avoid other associated risks.

Policy Statement 17

GPC shall acquire all ICT facilities and resources according to the needs of the College community.

Strategies - ICTU

  i. Assist user departments to derive and review their ICT acquisitions and purchases to ensure that the equipment required is of the required standard and have value for money;

 ii. Establish standard procedures for the identification, evaluation and selection of appropriate hardware and software;

iii. Update the minimum specifications of all ICT facilities to meet the demands of the latest technologies to fulfil the needs of the College community;

iv. Acquire volume licenses for appropriate software in accordance to the needs of the College community.

Strategies - Heads of User Departments/Units:

  i. Ensure that all purchase requests for hardware, software, or computer-related components meets the department/unit needs;

 ii. Ensure that all specifications of hardware, software, or computer-related components are reviewed and approved by the Head of ICTU.

Policy Statement 18

GPC shall ensure that all acquired ICT assets through projects or research collaborations are owned by the respective Departments or Units.

Strategies - ICTU

i.   Keep inventory of all ICT assets acquired through projects and research collaboration;

ii.   Provide periodic status of the facilities to College management.

Strategy - The Head of Departments and Units

i.   Ensure that ICT assets acquired through projects are owned by Department or Units by which the project. implemented.

Policy Statement 19

GPC shall ensure that all ICT facilities and resources are continuously maintained to facilitate College Business Operations.

Strategies - The ICTU:

i.   Establish a database for all ICT assets within the College and promote the proper storage, management and easy retrieval of ICT assets and facilities;

ii.   Keep up to date hardware documentation and the same shall be made available to staff who are authorised to support or maintain systems;

iii. Ensure that prevention and periodic maintenance is performed on all ICT assets.

Strategies - The Head of Departments and Units:

i.   Reported to Head of ICTU timely on ICT assets with faults that need to be fixed or upgraded;

ii.   Maintain the location of ICT assets in their respective Department and Units and report to the Head of ICTU any re-location of ICT asset;

iii. Ensure the database of assets for their Departments and Units is updated in collaboration with ICTU;

iv.   Acquisition report for ICT system submitted to ICTU for record keeping.

Strategies - Head of Procurement Management Unit (PMU):

i.   Notify ICTU on all new acquired ICT equipment for inspection and record keeping;

ii.   Ensure all ICT equipment are codded per existing Government guidelines.

Policy Statement 20

GPC shall ensure that all obsolete ICT facilities and resources are disposed of and replaced to meet the needs of the College community.

Strategies - The ICTU:

i. Put in place standard procedures to assess the viability of ICT facilities, resources and services;

ii. Establish a centralized backup and archive system to store important data from obsolete or decommissioned ICT equipment;

iii. Ensure that there is a secure mechanism for erasing sensitive information before disposing ICT equipment;

iv. Collaborate with PMU to ensure ICT equipment are disposed based on prevailing Government Guidelines for disposal of ICT assets.

Strategies - Head of PMU:

i. Notify ICTU before disposing ICT assets to ensure data contained in the equipment is removed and stored if needed;

ii. Ensure all ICT disposed items are done per existing policies and guidelines.

Policy Statement 21

GPC shall ensure that ICT services are effectively and efficiently delivered to College community and other stakeholders.

Strategies - The ICTU:

i. Define meaningful metrics to measure service results and using the metrics to drive continuous service improvement

ii. Ensure that monitoring and improvement of service quality through the effective application of processes

iii. ensure compliance with all eGovernment Standards and Guidelines relating to the ICT Service Management.

iv. Ensure that for every ICT services provided, Service Level Agreements between the providers and the recipients are established

v. Ensure that reports on service quality are reviewed periodically with customers along in order to determine things that could be added or changed to improve service delivery and support

3.6 Issue: Information Systems and ICT Project Management

Information Management Systems (IMS) are important for the College to perform its management and administrative functions. To this end automation of the management and administrative functions and processes through the establishment of information systems need to ensure that all the various categories of functions and processes are considered in an integrated manner to avoid redundance and enhance data and resource sharing among them.

Thus, the acquisition and management of these information systems needs to be well planned and coordinated to ensure optimal use of resources, systems interoperability and valued services. In

this way, Policy provisions are needed to ensure system acquisition; development, use, maintenance and upgrades are managed properly. In addition, any ICT project initiated within GPC need to be well managed for the authority to realize intended objectives. In this respect, Policy provisions are required as well to ensure ICT projects are managed in a controlled process which aligns with the appropriate governance structures to control the project. This will identify and manage risks associated with ICT projects and ensure roles and responsibilities are clearly identified.

Policy Statement 22

GPC shall systematically develop, procure, adopt and adapt information managementsystems for all its management and administrative functions.

Strategies – ICTU:

i. Encourage and promote use of information management systems to manage:

    a. Administrative transactions and functions;
    b. Financial and procurement functions;
    c. Estates and transport functions;
    d. Laboratory functions including sample archives, diagnostic activities, and maintenanceschedules;
    e. Students' management functions.
    f. Library management functions;
    g. Human resources functions;
    h. Hospital Management functions;

ii. Ensure that appropriate software and platforms are in place for managing different functions;

iii. Acquire, develop or customize software which will be used for local purposes and for income generation;

iv. Adopt and adapt open-source software to ensure that the IMS used by the College are cost effective and guarantee survival in cases of poor funding;

v. Train staff and students on the use of various College Information management systems (IMS);

vi. Ensure quality management and maintenance of the College Information management systems (IMS);

vii. Make sure all acquired software bare legitimate licenses and accompanied by technician documentation and user manuals;

viii. Make sure all software developments and customisations comply with user department requirements and other relevant standards and guidelines.

Strategies - Head of Departments/Units:

i. Computerize all functions of the respective Departments/Units by providing requirements to the College.

Policy Statement 23

GPC shall implement ICT projects or initiatives those are addressing College core mission, aligned to other College initiatives and sustainable in nature.

Strategies - ICTU:

i. Develop a prioritised list of key ICT projects or sub-component of the project/initiatives that they require to be implemented over the course of the financial year;
ii. Ensure that any ICT project or sub-component of the project/initiative is aligned to College objectives regardless of sources of financing;
iii. Make sure ICTU is involved in all stages of any ICT project namely initiation, preparation, negotiation, execution, monitoring and evaluation and closure;
iv. Ensure that projects are reviewed by other authorities based on existing national policies and guidelines;
v. Participate in all stages of any ICT project or sub-component of the project;
vi. Make sure ICT projects are evaluated periodically to ensure the project is implemented within required standards.

Strategies - Head of Departments/Units:

i. Initiate ICT projects or sub-component of the project in collaboration with ICTU through project concept note or similar project write up.
ii. Initiate ICT projects taking into consideration available ICT systems as well as other inter – departmental collaborative needs.

3.7 Issue: Application of ICT in Teaching, Research and Consultancy

Teaching, Research and Consultancy are among the main core functions of GPC. The increasing pressure for the need to continue to expand student enrolment in a bid to meet the national technical and health human resource needs, GPC need to improve the delivery of its educational programmes and cop with the increasing number of students and programmes through integration of ICT in teaching and learning activities. In addition, Use of modern ICT to enhance research and consultancy services is vital to ensure effective and efficient knowledge creation, management and sharing. However, among the challenges that GPC is facing like many other modern higher learning institutions is to responsibly align ICT as a positive force for encouraging creative pedagogical methods for academic staff and expanding instructional options for students and the expanding need to enhancing research and consultancy services though application of ICT.

Policy Statement 24

GPC shall use ICT to enhance teaching and learning.

Strategies - ICTU:

i. Establish E-learning Policy to govern teaching and learning activities;
ii. Establish and maintain appropriate e-learning infrastructure and services to support teaching and learning;

iii. Employ qualified technical ICT staff to manage and support e-learning infrastructure and services;

iv. Make available alternative sustainable energy to ensure smooth running of e-learning systems;

v. Deploy and maintain one type of e-learning platform for the whole College to avoid duplication of efforts and to enhance sharing and exchange of contents, and tools;

vi. Ensure open-source e-learning platform is adopted to avoid unnecessary recurrent costs on software procurement;

vii. Ensure that the intranet and the internet infrastructure facilitate learning and teaching on campus and off-campus;

viii. Acquire and maintain appropriate hardware to support e-learning and teaching activities in all possible learning environments;

ix. Improve network systems including Local Area Network (LAN), Wide Area Network (WAN and other data communication systems in all possible learning environments;

x. Enhance and optimize internet bandwidth to meet requirements for e-learning;

xi. Acquire appropriate software for preventing plagiarism, authoring and editing of audio-visuale-learning content, and other related software for e-learning purposes;

xii. Provide personalized accounts for users in the e-learning platform, to meet their diverse learning, teaching and research needs;

xiii. Promote the use of collaboration, communication, and feedback tools through discussion forums, chat rooms and other related features in the e-learning platform;

xiv. Facilitate the dissemination of best practices, case studies and other relevant information for e-learning purposes;

xv. Promote and support peer review tools and student assessment of academic staff to enhance teaching, learning and research;

xvi. Integrate the electronic materials stored by the College library systems with the e-learning platforms to ensure usability of e-learning resources;

xvii. Develop and maintain e-learning platform that supports a repository of reusable learning objects (RLO) at GPC to ensure future re-use of e-learning contents, templates and tools;

xviii. Integrate the institutional repository, electronic reference services, and other emerging technologies at the library services with the e-learning platform.

xix. Link e-learning system with the library information system, student management information and financial information system and other relevant information systems at GPC.

Policy Statement 25

GPC shall ensure that the e-learning system is secured and access given to authorized users only.

Strategies - ICTU:

i. Ensure physical protection of the e-learning facilities at GPC;

ii. Acquire the necessary hardware and software for the purpose of monitoring and protecting e-learning systems against damage, misuse and unauthorised access;

iii. Put in place standard procedures for backup to ensure regular backups of e-learning contents and technologies;

iv. Ensure that access authentication mechanisms are implemented on the e-learning platform through the use of username and password;

v. Train content developers on how to impose access restrictions on their materials for reading, editing or copying on the platform.

Policy Statement 26

GPC shall ensure development and protection of appropriate local content for teaching and learning.

Strategies – ICTU:

i. Ensure intellectual property Policy and guidelines have provisions to govern copyright issues regarding e-resources and e-learning contents;

ii. Ensure content developers adhere to intellectual property Policy and guidelines;

iii. Observed e-resources copyright notices from online public systems.

Policy Statement 27

GPC shall facilitate use of ICT for research and consultancy management.

Strategies - ICTU:

i. Provide the ICT expertise necessary to improve access and visibility of research findings produced at the College;

ii. Ensure accessibility of internally available electronic research resources outside the GPC network through establishment of a virtual private network (VPN);

iii. Establish and maintain research data management system where all the data from the field should be archived;

iv. Ensure use of software packages for research data analysis and management is a priority;

v. Manage and maintain contents in the institutional repository based on existing College policies/

3.8 Issue: ICT Training and Capacity Building

In order for the College to ensure good and efficient usage of ICT services all academic and administrative staff need to be equipped with adequate knowledge and skills on the proper use of ICT services. In this regard, Policy guidance is necessary undergo continuing education and professional development programmes in order to keep up with the changing and emerging technologies.

Policy Statement 28

GPC shall ensure that staff and students are equipped with adequate knowledge and skills in the use of ICT.

Strategies – ICTU:

i. Create conducive environment for use of ICT among students and faculty;

ii. Constantly identify ICT training needs for GPC staff;

iii. Develop and run courses on ICT to all students;

iv. Promote peer to peer learning through use of ICT;

v. Enhance students ability to make optimal use of ICT facilities and resources at GPC;

vi. Provide students with flexibility with regards to the learning environment;

vii. Create a continuing education programme for academic and administrative staff on ICT;

viii. Provide training on proper use of ICT to the surrounding community;

ix. Ensure that all ICT staff undergo continuing education on ICT especially on the emerging technologies;

x. Ensure that ICT staff attends local and international ICT workshops and conferences to enhance their knowledge and skills;

xi. Continue to maintain GPC Education and Research Network membership(s) in order to exploit capacity building programmes meant to enhance optimal use of ICT among the members;

xii. Ensure that all technical staff engage in self-learning and from time to time provides evidence for the same.

Policy Statement 29

GPC shall utilize the existing partnerships and seek new partners to support life-long learning in ICT and to build the capacity of staff and students.

Strategies - ICTU:

i. Establish collaborations with other Government and non-Government institutions both nationally and internationally;

ii. Foster industrial linkages that will enhance skills and knowledge to both staff and students;

iii. Enable sharing of e-resources available in these institutions;

iv. Enhancing teaching and learning capacity through exchange programmes.

3.9 Issue: ICT Research, Development and Innovation

ICT Research, Development and Innovation is a continuous process of invention that can be applied to improve use of ICT to enhance GPC core functions. Research activities in ICT can

also bring in funds, motivate staff and develop new knowledge, and thereby bring about credibility and recognition of the ICTU as an academic unit of the College.

Policy Statement 30

GPC shall facilitate ICT research and development activities among its stakeholders.

Strategies - ICTU:

i. Promote DARC for purposes of promoting research and development activities geared to enhance GPC core functions;

ii. Encourage ICT staff to undertake research;

iii. Identify areas of collaboration and develop fundable proposals with r academic staff at the College;

iv. Promote research linkages with other research institutions;

v. Promote ICT research activities;

vi. Promote commercialization of ICT research products and innovations.

Policy Statement 31

GPC shall promote ICT Research, Development and Innovation culture and practices for various units and programmes.

Strategies - ICTU:

i. Establish ICT Incubation programmes for enhancing development of innovative solutions for various College functions;

ii. Link with Head of Departments Units and to undertake multidisciplinary research that includes application of ICT in their respective disciplines.

3.10 Issue: Special Needs and Gender

ICT and assistive technology provide new opportunities for everyone including people with physical challenges, who make use of assistive technology for their daily activities to a higher extent than others. The Zanzibar ICT Policy asserts the need for individuals with physical challenges to be able to benefit on an equal basis from the rapid development of ICT, and to enable them to participate in an inclusive and barrier free information society.

On the other hand, GPC has been implementing the national policies on gender mainstreaming, which among other things advocate increased female students enrolment and observance of gender issues when recruiting staff. Furthermore, the emphasis of gender issues at GPC is evident through the existence and implementation of an institutional gender Policy which seeks to ensure that GPC becomes a gender responsive area for both staff and students. It is authoritative to provide direction on how ICT will foster inclusion in access of services for people with special needs and how ICT provide gender responsive services.

Policy Statement 32

GPC shall strive to ensure that ICT facilities and services are accessible to individuals with special needs and that specialized technological resources are made available to meet and support their needs.

Strategies - ICTU

i. Strive to provide specialized ICT technologies and support needed for individual with physical challenges;

ii. Develop modalities to receive feedback from users of ICT that are physically challenged in order to improve their services.

Policy Statement 33

GPC shall provide gender responsive services to both staff and students.

Strategies - ICTU

i. Develop GPC Gender Policy and Anti-Sexual Harassment Policy;

ii. Observe the institutional Gender Policy when recruiting ICT staff;

iii. Provide ICT services to all staff and students of the College without any form ofgender discrimination.

3.11 Issue: Third Party Management

All external organisations or individuals who wish to supply products and services or to be provided with access to the GPC systems shall agree to follow this ICT Policy and associated procedures as part of their contractual terms. Management of third parties include issues on third party verification, Service level agreements, outsourcing, cloud computing services, equipment leasing, maintenance and support services, and lastly issues pertaining to Internet Service Providers (ISPs).

Policy Statement 34

GPC shall establish procedures for vetting, verifying, granting of restrictive access and registering all third-parties before being allowed access to any of the College's ICT resources.

Strategies - ICTU:

i. Schedule all third-party access to the computer rooms to occur during regular working hours;

ii. Ensure that third-party and its agents comply with all applicable GPC standards, agreements practices and policies;

iii. Ensure that each third-party onsite employee acquire an GPC ID badge that must be displayed at all times while on the College premises;

Policy Statement 35

GPC shall ensure that all service contracts with service providers including third-party vendors include security clause concerning availability, integrity, confidentiality and integrity of data accessed on the course of serving the College.

Strategies - ICTU:

i. Clear each third-party employee that has access to GPC sensitive information by signing confidentiality and non-disclosure forms for handling that information;

ii. Ensure that all third-party employees comply with all applicable auditing regulations and GPC auditing requirements, including the auditing of the third-party's work.

4. POLICY STATUS

This is the 1st GPC Policy Document.

5. KEY STAKEHOLDERS

The stakeholders who were consulted during the development of this Policy include the followings:

i. Members of Governing Board;

ii. Deputy Principals;

iii. Head of Departments and Units;

iv. ICT staff;

v. Staff and Students.

The main stakeholders of this Policy are:

i. All GPC staff and students;

ii. Principal, Deputy Principals;

iii. Heads of Departments and Units;

iv. Staff and Students;

v. Visitors, and Service Providers/Contractors.

6. APPROVAL DETAILS

The ICT Policy was approved by the College Governing Board at its 2nd 2023 meeting held on 29th, 2023.

7. EFFECTIVE DATE FOR THE POLICY

The Policy will be effective upon such date approved by the College Governing Board or such date stated by the College Governing Board for the Policy to become effective.

8. NEXT REVIEW DATE

The Policy and procedures will be reviewed after every three years or when deemed necessary to assess the effectiveness of its implementation and determine Policy areas that need to be revised. The periodic review will ensure the Policy is in line with the College, national, regional and international changes that might have taken place.

9. POLICY OWNER

The College Governing Board shall own the GPC ICT Policy.

10. CONTACT PERSON

The contact person for issues related to the ICT Policy and procedures shall be:

The Head, Information and Communication Technology Unit (ICTU)

Glorious Polytechnic College

P.O. Box 1928

Zanzibar.