



University of Mines and Technology (UMaT),
Tarkwa, Ghana

STRATEGIC PLAN

2015-2024

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SECTION ONE

INTRODUCTION

1.1 Background

The University of Mines and Technology (UMaT) originally started as the Tarkwa Technical Institute to provide training of technicians and middle level manpower for mining and related industries. The University transformed into its present position to be a centre of excellence for the development of mining, petroleum, technology and related fields and to act as a catalyst for the development of mining and technology.

Under its relatively new university status, it is confronted with the following questions:

- What should be done to ensure a meaningful role for the University, amplify its relevance and strategically position itself in the 21st century as a centre of excellence?
- What should be done to achieve the objectives of the University?
- Given its resource constraints and geographic location, how could the University diversify its sources of funding and increase its linkages with external stakeholders?

The objective of the Strategic Plan of UMaT is to address these and other related issues of making the University a growth pole for national development. This Plan utilises an understanding of UMaT's unique history and strengths to marshal its resources and work with all its constituent parts to develop a spirit of enterprise and adaptiveness to meet the present, as well as any future challenges with pragmatic readiness.

1.2 Aspirations of the Strategic Plan

The UMaT Strategic Plan puts forth an overarching aspiration for the University to be a Centre of Excellence in Ghana and Africa for producing world-class professionals in the field of mining, petroleum, technology and related disciplines. The general strategy proposed to achieve this aspiration is captured in the mission statement: "To provide higher education in mining, petroleum, technology and related disciplines through effective teaching and learning, to promote knowledge through active research and dissemination of information and to offer professional services through extension services to the mining, petroleum and allied industries".

To accomplish the mission, a set of objectives has been defined together with strategies and activities that would enable the University meet its overarching vision of being a Centre of Excellence in mining, petroleum, technology and related disciplines.

1.3 Plan Period

This Strategic Plan (SPLAN2K24) covers the period 2015 to 2024, and is in three phases- the short-term (2015 – 2017), the medium-term (2018 – 2020), and the long-term (2021 – 2024). While the vision, mission and objectives will remain relevant beyond the plan period, it is expected that the strategies will be continuously revised to meet the exigencies of the operating environment, government policy direction and the growth and development of UMaT.

SECTION TWO

OVERVIEW OF THE UNIVERSITY

2.1 Early Beginnings

The University of Mines and Technology (UMaT) started as the Tarkwa Technical Institute (TTI) on 3rd November, 1952 but was officially commissioned by the Government of Ghana, more precisely by His Excellency the Governor of the Gold Coast, Sir Charles Noble Arden Clarke, on 7th October, 1953.

In 1961, the Government, upon the advocacy of the Ghana Chamber of Mines, redefined the mission of TTI to incorporate the training of mining technicians and other middle level manpower for the country's mining and related industries. Accordingly, the name TTI was changed to the Tarkwa School of Mines (TSM) to reflect the new mission. With assistance, over the years, from the Canadian International Development Agency (CIDA), United Nations Development Programme (UNDP) and Gesellschaft fuer Technische Zusammenarbeit (GTZ), TSM upgraded and developed its academic facilities and staff to enhance its capacity for training highly qualified personnel for the growing mining and related industries in the country.

In 1976, the Government recognised the capability of TSM and its strategic location at Tarkwa, which is at the centre of mining activities in the country. Since this location gave TSM a special strength for mining education, TSM was affiliated to the Kwame Nkrumah University of Science and Technology (KNUST), Kumasi as a faculty of the University so as to enable it offer degree, diploma and certificate programmes in mining and related fields. The name TSM was changed to KNUST School of Mines (KNUSTSM), Tarkwa. The KNUSTSM, Tarkwa and the Kumasi School of Mines were merged to become the Institute of Mining and Mineral Engineering (IMME).

2.2 Accession to University Status

In 1988, a University Rationalisation Committee (URC), commissioned by the Ministry of Education recommended the development of the School and its conversion into a university. In 2000, the conversion of KNUSTSM into a university was again strongly recommended by Louis Berger Inc. in association with Kwame Asante and Associates in the report on Partial Commercialisation of KNUST.

In 2001, the Council of KNUST considered and approved proposals and recommendations of the Academic Board to merge the School of Mines at Kumasi and the School of Mines at Tarkwa into the Western University College of KNUST, Tarkwa.

On 3rd November, 2004, at exactly 11.35 hrs GMT, the Parliament of the Republic of Ghana passed the bill of the University of Mines and Technology into an Act of Law. On the 11th November, 2004, the President of Ghana gave the Presidential Assent and on the 12th November, 2004 the University of Mines and Technology, Tarkwa Act 2004 (Act 677) was gazetted and thus became law.

2.3 Present State of the University

The University is situated at Tarkwa. The campus covers a land area of approximately 1.60 km². The University has three main halls of residence, the Chamber of Mines Hall, the Gold Refinery Hall and Dr M. T. Kofi Hall, for both male and female students.

The University Council constitutes the apex of a hierarchical structure of a system of committees for the management of the University. The Principal Officers of the University are the Vice Chancellor, the Pro Vice Chancellor, the Registrar, the Finance Officer and the Librarian.

The academic activities of the University are currently performed by two faculties (the Faculty of Mineral Resources Technology and the Faculty of Engineering), the School of Postgraduate Studies and the Centre for Communication and Entrepreneurship Skills. The immediate plan is to establish a new Faculty of Integrated Management Sciences and the School of Petroleum Studies. Other faculties and departments will be developed with time.

The University has a number of municipal facilities. These include a Clinic, Basic Schools (Nursery, Primary and Junior High School) and a campus FM Radio Station. Others are the Maintenance Unit, Estate Unit, Transport Unit and the Security Unit to ensure that facilities of the University are maintained and protected.

At the beginning of 2014/2015 academic year which is ten years after the implementation of the first strategic plan, the student enrolment had risen to 2,105 made up of 1,810 males representing 86% of the student population, and 295 females representing 14% of the total student population.

Since the start of the implementation of the government's higher educational reform programme in 1992, the rate of growth in student population has been fairly high. The student population in 1992 was 410 made up of 409 males and 1 female. The female population as at 1992 represented 0.2% of the student population. At the beginning of 2000/2001 academic year the figure had risen to 625 made up of 597 males and 28 females. This figure represents an increase of 52% over ten years. At the beginning of the 2004/2005 academic year the enrolment figure stood at 860 made up of 801 males and 59 females.

SECTION THREE

PLANNING PROCESS

3.1 Strategic Planning Framework

Strategic planning is a formal process designed to help an institution identify and maintain an optimal alignment with the most important elements in the environment within which the institution is located and operates. This environment consists of the political, social, economic, technological and educational ecosystem, both internal and external to the institution.

Although every strategic planning process is uniquely designed to fit the specific needs of a particular institution, every successful “model” includes most of these steps. Identification of the organisation’s vision and mission is the first step of any strategic planning process. The organisation’s vision sets out the reasons for the organisation’s existence and the “ideal” state that the organization aims to achieve; the mission is a brief and comprehensive statement of purpose of an organisation, identifies major goals and performance objectives. Both are defined within the framework of the organisation’s philosophy, and are used as a context for development and evaluation of intended and emergent strategies.

Once these are clearly defined, it moves on to a series of analyses, including environmental scan (external, internal, gap, and benchmarking), which provide a context for developing the organisation’s strategic issues. The environmental scan, performed within the framework of the SWOT, an abbreviation used to denote analysis of an organisation’s internal Strengths (S) and Weaknesses (W) and external Opportunities (O) and Threats (T), analyses information about the organisation’s external environment (economic, social, demographic, political, legal, technological, and international factors), the industry, and internal organisational factors.

Strategic programming follows and the organisation develops specific strategies including strategic objectives, activities, outputs and targets. Objectives are the things the organisation must achieve to be successful in her mission and make significant progress towards her vision. Strategies are how the organisation will drive change and achieve her objective. Outputs or indicators are the products and services the organisation will deliver to achieve her objectives and strategies. Periodically, the organisation evaluates its strategies and reviews its strategic plan, considering emergent strategies and evolving changes.

3.2 UMaT Strategic Planning Process

The UMaT Strategic Plan (SPLAN2K24) is an update of the Strategic Plan (SPLAN2K14) which became necessary at the end of the first plan period. The process was spear-headed by a seven-member Committee which went through a thorough engagement with the whole University community to ensure that all the relevant issues for the next decade were addressed. The University Council at its 52nd Regular meeting constituted a six-member Committee to scrutinise and review the updated document in order to enrich it for implementation. In its work, the Committee consulted the following documents from other Universities:

- University of Ghana Strategic Plan 2014 -2024
- Cornell University Strategic Plan 2010-2014
- Oxford University Strategic Plan 2013-2018
- Boston University Strategic Plan 2010-2015
- University of California at Berkeley Strategic Plan 2014-2017
- University of California at Los Angeles Strategic Plan 2009-2018

SECTION FOUR

VISION, MISSION, CORE VALUES AND STRATEGIC PRIORITIES

4.1 Vision Statement

The vision of the University is to be a Centre of Excellence in Ghana and Africa for producing world-class professionals in the fields of mining, petroleum, technology and related disciplines.

4.2 Mission Statement

The mission is to provide higher education in mining, petroleum, technology and related disciplines through effective teaching and learning; to promote knowledge through active research and dissemination of information and to offer professional services through extension activities to the mining and allied industries.

4.3 Core Values

The core values of the University are Knowledge, Truth and Excellence.

4.4 Strategic Priorities

The University aims to lead Ghana and Africa in research and education in the extractive industry. It seeks to accomplish these in ways which benefit the society on a national and a regional scale. Over the plan period, the University will build its strength and competitive advantage in mining, petroleum and technology in order to foster the culture of research and innovation. To meet these aspirations, the University has adopted seventeen (17) objectives under three (3) strategic priorities for the plan period (2015 – 2024):

A. Human Resource Development and Management Efficiency

1. Attract, develop, motivate and retain high calibre faculty.
2. Increase quality student enrolment and promote gender mainstreaming in all programmes.
3. Re-orient faculty to train students and staff in entrepreneurship.
4. Provide practical training to students and staff.
5. Develop management skills of staff.
6. Increase resource mobilisation to improve efficiency, accountability and transparency in the University.
7. Promote a greater sense of community among all the stakeholders in the University.
8. Increase the visibility of the University.

9. Build a strong Alumni Association whose activities enrich the University's ethos and development.

B. Improvement of Infrastructure and Information and Communications Technology (ICT)

10. Develop and maintain the infrastructure and facilities of the University.
11. Expand Information and Communications Technology (ICT).
12. Develop a new site of the University.
13. Establish a School of Petroleum Studies and other Faculties/Schools.

C. Excellence in Teaching, Research and Extension Activities

14. Create and sustain a culture that supports excellence in quality teaching, learning and research for innovation and creativity.
15. Encourage multi-disciplinary research programmes and establish linkages with the extractive and allied industries.
16. Strengthen and expand postgraduate training.
17. Provide effective consultancy services and establish Technology Development and Training/Transfer Centre.

SECTION FIVE

SITUATION ASSESSMENT: STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS

To accomplish the University's objectives, it is important to scan the environment and analyse the Strengths, Weaknesses, Opportunities and Threats (SWOT). It is important to identify areas of opportunity where the strengths of the University could be applied for maximum advantage while managing the constraints or threats. Similarly, the weaknesses represent gaps that need to be filled if the University is to take advantage of the opportunities. The SWOT analysis is discussed in this section.

5.1 STRENGTHS

There are many strengths of the University that could promote it into prominence in the next decade.

5.1.1 Quality of Faculty Members and Staff

The University has young and highly qualified academic staff. Fifty-seven per cent (57%) of the academic staff are below 45 years of age. Forty-three percent (43%) of the staff hold PhD degrees in their fields of specialization. Some faculty members serve on reputable international bodies. Quality research findings by faculty members are published in respectable journals or presented at international conferences.

5.1.2 Good Image and Reputation

Prospective students, both local and foreign, continue to show great interest in programmes of the University. The University has been responsible for training high level manpower for the mining and allied industries. Graduates from the University hold responsible positions in the mining and allied industries at home and abroad. Furthermore, the University attracts highly competitive consultancies. The University is regularly called upon to assist other African Universities in establishing mining and related programmes.

5.1.3 Unique Programmes

The University is the only institution that offers programmes in mining and allied disciplines in Ghana. It is also the only University that offers postgraduate programmes in Mining Engineering in West Africa. Though various institutions in Ghana offer courses in petroleum engineering, the petroleum engineering programme in UMaT is designed to give international touch to its studies by sending students to foreign countries to visit the oil and gas industries, thus making the programme unique. Furthermore, French language is taught to all first year undergraduate students with an option for a second

year to enable them communicate in basic French.

5.1.4 Collaboration with Institutions of Higher Learning and Research

The University has close collaboration with international institutions of repute. These are:

CONTINENT	NAME OF INSTITUTION
North America	1) University of Missouri-Rolla, USA 2) New Mexico Tech, USA, 3) University of Vermont, USA 5) University of Montana, USA 6) Pennsylvania State University, USA. 7) Montana Technology University, USA
Europe	1) Complutense University of Madrid, Spain 2) University of Malaya, Spain 3) Universita' Politecnica Delle Marche, Italy 4) L'ecole de Mine de Paris, France 5) T. U. Bergakadenire, Frieberg, Germany 6) Universidad Politecnica de Madrid, Spain
Africa	1) University of Zimbabwe 2) Ekiti State University, Endo-Ekiti, Nigeria 3) Federal University of Technology, Akure, Nigeria 4) Federal University of Technology, Oweri, Nigeria 5) University of Port Harcourt, Nigeria 6) University of Ilorin, Nigeria 7) University of Sierra Leone 8) Cuttington University, Liberia 9) Jomo Kenyatta Univ. of Agric & Technology, Nairobi, Kenya 10) International Institute for Water and Environmental Engineering (2ie), Ouagadougou, Burkina Faso 11) University of Ibadan, Ibadan, Nigeria 12) Nigerian Institute of Mining and Geosciences, Jos, Nigeria 13) Yeshua Institute of Science and Technology, Ghana 14) Ashesi University College, Berekusu, Ghana
Australia	1) University of South Australia, Adelaide, Australia

5.1.5 Strategic Location

The University is located at the centre of mining and petroleum activities in Ghana. Major mining and petroleum companies surrounding the University include the following:

- 1 Ghana Manganese Company, Nsuta
- 2 Gold Fields Ghana Ltd (Tarkwa and Damang Mines)
- 3 AngloGold Ashanti Iduapriem Mine Ltd
- 4 Golden Star Resources Ltd (Bogoso-Prestea and Wassa Mines)
- 5 Prestea Sankofa Gold Ltd
- 6 Adamus Resources Ltd
- 7 Perseus Mining Ghana Ltd
- 8 Kosmos Energy Ghana
- 9 Tullow Oil Ghana
- 10 Ghana Gas Company Limited

Some of the companies that are servicing the mining and petroleum organisations include African Mining Services (AMS), Maxam, Mantrac, AEL, SGS, Intertek, Schlumberger and Baker Hughes, and these are all located in the immediate environs of the University. Thus, ample opportunities exist for both practical training and collaborative research between the University and the extractive and allied industries.

5.1.6 Good Infrastructure and Environment

The University is situated on a campus of about 1.6 km². It has neat buildings interspersed with lush lawns and pavements. The University has a well-established Basic School for the education of the dependants of staff.

5.1.7 Improved Communication Facilities

The University's communication facilities such as telephone and internet services have improved tremendously over the last planning stage and it is expected to keep pace with technological developments.

5.2 WEAKNESSES

In spite of the many strengths of the University, there are distinct areas where significant improvement is required if the objectives are to be achieved:

5.2.1 Inadequate Teaching, Administrative and Support Staff

The location of the University and its status as a specialised institution make it difficult to attract the required calibre of teaching and administrative staff. Seventy two percent

(72%) of the teaching staff are of Lecturer grades, eighteen percent (18%) are of Senior Lecturer grades while ten per cent (10%) are of Professorial Status.

5.2.2 Inadequate Facilities for Advanced Research

Some of the laboratories have inadequate facilities for advanced research. There is inadequate office space for the teaching and research staff. The lecture rooms and theatres are not spacious enough to take combined classes. Chemicals, field instruments, laboratory equipment and materials are not adequate.

5.2.3 Inadequate Avenues for Internship for Staff and Students

The increasing student numbers as against the small number of mining companies have made the availability of avenues for internship for students woefully inadequate. Many students only get opportunity for their internship once during the course of their training. The avenues for internship for staff are also inadequate.

5.2.4 Inadequate Visibility of the University

The University as a relatively young institution suffers from little popularity which accounts for the inadequate support it gets from society.

5.3 OPPORTUNITIES

The University is strategically located and runs unique programmes that are related to the petroleum, mining and allied industries. Establishment of a petroleum and gas industry in the Western Corridor of Ghana provides opportunities to be exploited. UMaT is also best placed to mentor the planned establishment of Technical Universities in Ghana. The opportunities include the following:

5.3.1 Research

The University is established to advance knowledge through research. Research continues to hold a central place in the University's quest to be a centre of excellence for producing world class professionals in mining, petroleum and allied industries all over the world. The University has repositioned itself as the institution to provide thought leadership and policy direction for national development issues on mining, petroleum and allied industries in Ghana. It is now a reference point for consultations, workshops and training for the Minerals Commission, the Ghana Chamber of Mines, the Environmental Protection Agency, the AU Commission on Mining and other institutions in the areas of mining, petroleum and allied industries.

5.3.2 Special Programmes

Facilities exist in the University for special programmes to be mounted in the fields of general drilling, general mining, mechanical, electrical, mineral engineering, etc. to upgrade the skills of employees of mining and allied companies.

5.3.3 School of Petroleum Studies

To effectively manage the oil and gas resources and to add value to crude oil, the University is establishing a School of Petroleum Studies to include upstream and downstream programmes such as Petroleum Geosciences Engineering, Petroleum Engineering, Natural Gas Engineering, Petroleum Refinery and Petrochemical Engineering, etc. In addition, postgraduate programmes (MSc, MPhil and PhD) have been developed to update and/or upgrade the knowledge of Petroleum Engineers and related professionals to cope with the complexities associated with the fast-evolving technologies employed in exploration and production of oil and gas, and the associated economic and environmental issues.

5.3.4 Consultancy Services

Setting up a strong consultancy team to increase competitiveness at the local and international levels can strengthen the current consultancy services of the University to generate income, and create avenues for practical attachment for students and lecturers. The University has the capacity to set up a consultancy unit to coordinate consultancy services for the University.

5.3.5 Language Centre

The University has a Language Centre to prepare non-English speaking students since Ghana is surrounded by non-English speaking countries. The Centre also teaches Basic French to all first year students.

5.3.6 Artisanal and Small-Scale Mining

There is a proliferation of unregulated artisanal and small-scale mining activities characterised by poor mining practices resulting in tremendous environmental damage throughout the country. UMaT has the strength and capability to advocate for sustainable mining by running short courses, carrying out research and assisting artisanal and small-scale miners in the field to adopt best mining practices.

5.3.7 Collaboration with Allied Institutions and Industries

There is a potential advantage for the University to collaborate more with the local mining, petroleum, allied institutions and industries. The University has the capacity

to organise vacation short courses for employees of the large and small-scale mining companies to generate income. The University also collaborates with the following industrial companies including:

- Accra Brewery
- Arcelor Mittal Liberia Limited
- Japan Motors Trading Company Limited
- Vivo Ghana Limited
- Maxam Explosives Company Limited
- Metso Minerals Company Limited
- Kristo Asafo Technology Centre

5.3.8 Availability of land for New Campus

UMaT has a 26.76 km² land which is ready for development. The University is engaging Government to provide funds to commence the development of the administrative and lecture blocks on this site and scout for private financial institutions to fund a Students' village on build, operate and transfer (BOT) basis.

In responding to Government policy on growth and development of the economy, the University would serve as an industrial hub for the growth and expansion of the various industries in the Western Corridor of Ghana.

5.3.9 Partnership for Programme Enhancement

The University is well placed to enter into partnership with Ghana Chamber of Mines, Ghana National Petroleum Company, Minerals Commission, Petroleum Commission, DANIDA, GIZ and Carnegie Corporation, New York. Others include Clay Minerals Society, International Council for Mining and Metals (ICMM), Bill and Melinda Gates Foundation, Microsoft Corporation, Google, Association of African Universities, International Mining for Development (IM4D) and Japan International Corporation Agency (JICA).

5.3.10 Interaction with Alumni to Pool Resources

The Alumni occupy influential positions in industry. Fruitful and focused interaction with them will lead to the establishment of links to promote collaborative research and training. The University should benefit from the full participation and involvement of the Alumni in the form of partnerships, collaborations, funding, donation of books, journals, equipment, etc.

5.3.11 Expansion of UMaT Basic Schools

The University has the opportunity to expand the facilities of the Basic School to attract more staff.

5.4 THREATS

The University is confronted with some threats that are making effective performance of the various Departments and Units very difficult.

5.4.1 Inadequate Funding

The absence of adequate funding for the University prevents Departments and Units from performing effectively. Existing infrastructure does not meet the requirements of an ever-increasing student and staff population. Government subvention is usually inadequate and continues to dwindle. Funds are usually not released on time and this does not make for efficient planning and execution of tasks. Even though a special Presidential Pledge of GH¢ 100 million has been offered to the University through the Minerals Development Fund (MDF), disbursement after approval from the Presidency has been riddled with challenges.

5.4.2 Government Policy on Growth in Student Population

Rapid increase in student numbers, as a policy of Government, without corresponding increase in resources and staff adversely affects activities in the University.

5.4.3 Location of the University

The location of the University and the poor condition of some access roads to the University makes it difficult to obtain basic services required to keep the system running. It is always necessary to make contacts with companies outside Tarkwa in order to obtain basic services such as acquisition of computers, repair of vehicles, office equipment, etc.

SECTION SIX

STRATEGIES AND ACTIVITIES

6.1 The Planning Matrix

This Section of the Strategic Plan deals mainly with the strategies and activities that will facilitate the achievement of the planned objectives. The strategies cover the measures that the University will adopt to take advantage of the opportunities and address the weaknesses in order to achieve the objectives. Indicators/Outputs have been set to define specific milestones in the achievement of the objectives of the University during the short-term, medium-term and long-term.

The SPLAN2K24 places particular emphasis on modernising the infrastructure and facilities (including Information and Communications Technology), promoting quality teaching, research and learning environment, staff development and motivation, university-industry and alumni collaboration to mobilise required resources, increased funding for research, inter-faculty collaboration, and entrepreneurship training to enhance the market value of the graduates of the University.

The strategies and activities are described in Table 6.1 together with their corresponding indicators, time frame, cost estimates and responsible agents. The deep arrows in the time frame column indicate the implementation periods of the various activities while the dotted arrows indicate the activities whose implementation would be continued in the future. Also, “S” means short term, “M” means medium term and “L” means long term. Under the responsibilities section, the lead implementation agents are those that have been underlined while the rest are the collaborating agents.

Table 6.1: Planning Matrix

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY
				S	M	L		
A. Human Resource Development and Management Efficiency								
I. To attract, develop, motivate and retain high calibre staff	1.1 Improve the remuneration and working environment (offices, bungalows, etc) to facilitate the work of all categories of staff.	1.1.1 Improve conditions of service for all categories of staff.	<ul style="list-style-type: none"> Improved remuneration and other conditions of service Adequate offices and academic facilities in place for teaching, research and learning 30 Staff bungalows and 20 staff quarters constructed	▲	.....▲	.....▲	200,000	Vice Chancellor Finance Officer Director of Works & Physical Dev.
		1.1.2 Provide offices for academic staff and improve the teaching environment (teaching aids, equipment, chemicals, etc.)		▲	.....▲	.....▲	600,000	
		1.1.3 Provide adequate staff bungalows		▲	.....▲	.....▲	3,500,000	
	1.2 Employ adequate academic staff, technicians and research assistants and efficient secretarial and support services for teaching and research.	1.2.1 Recruit highly qualified academic staff.	<ul style="list-style-type: none"> Adequate well qualified academic staff at post. Adequate well qualified technical staff at post. Adequate secretarial staff	▲	.....▲	.....▲	150,000	Registrar Deans
		1.2.2 Recruit technical staff to assist in teaching and research		▲	.....▲	.....▲	15,000	
		1.2.3 Recruitment of secretarial staff.		▲	.....▲	.....▲	15,000	

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY
				S	M	L		
A. Human Resource Development and Management Efficiency								
	1.3 Improve funding for staff development	1.3.1 Solicit funds for staff training and scholarship schemes	<ul style="list-style-type: none"> Adequate funding for staff development 	↑	↑	↑	10,000	Vice Chancellor Registrar Deans
				↑	↑	↑	3,000,000	
				↑	↑	↑	1,000,000	
				↑	↑	↑		
	1.4 Provide affordable and decent residential facility for all category of staff	1.4.1 Provide accommodation when available 1.4.2 Grant adequate rent loans	<ul style="list-style-type: none"> At least 70% of all staff provided with decent accommodation All qualified applicants granted rent loans 	↑	↑	↑	420,000	Vice Chancellor Finance Officer Director of Works and Physical Development
			↑	↑	↑	200,000		
			↑	↑	↑			
			↑	↑	↑			

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY
				S	M	L		
				↑	↑	↑		
A. Human Resource Development and Management Efficiency								
	1.5 Initiate local training programme with attractive scholarship/bursaries for the technical and administrative support staff	1.5.1 Organise in-service training and short courses for staff 1.5.2 Support up-grading of knowledge for technical staff	<ul style="list-style-type: none"> Two workshops organised each year High level of efficient and effective technical and administrative system 	↑	↑	↑	40,000 50,000	<u>Registrar</u> <u>Deans</u>
	1.6 Organise training in teaching methods, research and curricular development	1.6.1 Organise workshops on pedagogy and research proposals writing and management	<ul style="list-style-type: none"> One workshop for each Faculty per year Five percent increase in number of research projects undertaken annually Increase in research grants to the University 	↑	↑	↑	25,000 100,000 100,000	<u>Deans</u>
	1.7 Improve Monitoring and Evaluation Systems for the University	1.7.1 Assess and enhance the existing staff performance Monitoring and Evaluation System (MES) 1.7.2 Organise regular staff development programmes	<ul style="list-style-type: none"> Two monitoring and evaluation reports in a year using enhanced system Two workshops on staff development per year 	↑	↑	↑	10,000 15,000	<u>Dean,</u> <u>Planning and Quality Assurance Unit</u> <u>Deans</u>

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY
				S	M	L		
A. Human Resource Development and Management Efficiency								
2. Increase student enrolment and promote female participation in all programmes	2.1 Package and market programmes of the University in the Senior High Schools	2.1.1 Provide career guidance at the SHS level	<ul style="list-style-type: none"> University prospectus distributed to at least 30% of science based SHS in Ghana Increase in overall student enrollment to 10,000 	↑	↑	↑	50,000	Head, Academic and Student Affairs Unit Audio Visual Unit
		2.1.2 Develop, produce, distribute advertise brochures on admission requirements		↑	↑	↑	30,000	
	2.2 Introduce specialised diploma and certificate programmes	2.2.1 Develop and advertise specialised diploma and certificate programmes	<ul style="list-style-type: none"> Specialised diploma and certificate programmes advertised regularly Specialised diploma and certificate programmes running 	↑	↑	↑	20,000	Deans Heads of Departments
	2.3 Admit more female students (Gender Mainstreaming)	2.3.1 Develop, produce and distribute brochures on opportunities for female students	<ul style="list-style-type: none"> More female students representing at least 40% of total enrolment At least 40% of female students funded per year At least 80% of all female students linked to WINE 	↑	↑	↑	20,000	Head, Academic and Student Affairs Unit Audiovisual Unit
		2.3.2 Solicit funds from donors for funding needy female students		↑	↑	↑	10,000	University Relations Unit
		2.3.3 Link female students in UMaT to Women in Engineering (WINE)		↑	↑	↑	10,000	Deans of Faculties Heads of Departments

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY
				S	M	L		
A. Human Resource Development and Management Efficiency								
	2.4 Increase the number of academic and technical staff	2.4.1 Assess needs, advertise vacancies and appoint new academic and technical staff	<ul style="list-style-type: none"> At least 80% of required academic and technical staff at post	↑	.....	.....	30,000	Deans Registrar
3. Re-orient Faculty to train students and staff in entrepreneurship	3.1 Institute lectures and seminars at which resource persons from the industry will share their experiences with students and staff of the University	3.1.1 Identify resource persons from industry 3.1.2 Organise seminars on entrepreneurship at which the resource persons from the industry will share their experiences with students and staff	<ul style="list-style-type: none"> Resource persons from industry identified At least one seminar per semester held for all categories of students and staff 	↑			5,000 100,000	Dean, Planning & Quality Assurance Unit Deans

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY
				S	M	L		
A. Human Resource Development and Management Efficiency								
4. Provide practical training for students and staff	4.1 Negotiate with industry and donors to provide facilities for students and staff attachment/field visit to acquire practical skills	4.1.1 Arrange for students to go on industrial attachment/field visit	<ul style="list-style-type: none"> All students are attached to industry at least once and visit the field twice before graduation At least 80% of students attached are assessed per year Four 60-Seater field buses acquired All lecturers visit the field once every two years Experimental mine established to improve students and staff practical training	↑	.....↑	↑	10,000	<u>Training Coordinator</u>
		4.1.2 Assign academic staff to visit and assess work of students on industrial attachment		↑	.....↑	↑	50,000	<u>Training Coordinator</u>
		4.1.3 Solicit funds from GETFund, Chamber of Mines, Industry and donors to purchase buses for field visits		↑	.....↑	↑	300,000	<u>Finance Officer</u>
		4.1.4 Arrange for staff to go on industrial attachment		↑	.....↑	↑	300,000	<u>Heads of Departments</u>
4.2 Develop an experimental mine	4.2.1 Solicit funds for the establishment of an experimental mine	4.2.1 Solicit funds for the establishment of an experimental mine		↑	.....↑	↑	2,500,000	<u>Vice Chancellor</u> <u>Dean, FMRT</u> <u>Head, Mining</u>

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY
				S	M	L		
A. Human Resource Development and Management Efficiency								
5. Develop management skills of staff	5.1 Establish planning and monitoring systems at all levels in the departments/units	5.1.1 Establish Planning and Monitoring Unit in the University	<ul style="list-style-type: none"> Planning and Monitoring Systems functioning	↑	.....↑	.....↑	20,000	Vice Chancellor Director of Works & Physical Dev. Deans Heads of Departments
	5.2 Equip Management to effectively play their role	5.2.1 Organise management training for all staff assuming Management positions	<ul style="list-style-type: none"> Skills of management staff improved	↑	.....↑	.....↑	20,000	
			5.3.1 Organise quarterly forum between management and staff at various levels (departments/units)	<ul style="list-style-type: none"> Five (5) Station wagon, Eight (8) Saloon cars purchased Forum organised each quarter 	↑↑↑	700,000
	5.3 Institute regular interaction between management and staff of the University			↑	.....↑	.....↑	20,000	Vice Chancellor Director of Works & Physical Dev.

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY	
				S	M	L			
A. Human Resource Development and Management Efficiency									
6. Increase resource mobilization to improve efficiency, accountability and transparency in the University	6.1 Create an office of institutional advancement for resource mobilization	6.1.1 Encourage financial resource mobilization through institutional advancement	<ul style="list-style-type: none"> Office of institutional advancement created	↑	.....	↑	50,000	Finance Officer	
		6.2 Ensure prudent management of the University finances	6.2.1 Organise training in Financial Administration, Procurement and Audit Acts	<ul style="list-style-type: none"> High awareness and application of the Financial Administration, Procurement and Audit Acts	↑	.....	↑	20,000	Finance Officer
	6.3 Ensure transparency in University administration	6.3.1 Institute mechanisms to comply with provisions of the Financial Administration, Procurement and Audit Acts	6.2.2 Restructure the financial and accounting system	<ul style="list-style-type: none"> Financial and accounting system restructured.	↑	.....	↑	50,000	
			6.2.3 Encourage financial institutions such as the banks to establish agencies on campus	<ul style="list-style-type: none"> Financial institutions operating on campus	↑	.....	↑	2,000	
			6.3.1 Institute mechanisms to comply with provisions of the Financial Administration, Procurement and Audit Acts	<ul style="list-style-type: none"> Financial operations of all Units conform to the requirement of the Financial Administration, Procurement and Audit Acts. High level of accountability, cost-effectiveness and transparency	↑	.....	↑	10,000	Finance Officer

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY				
				S	M	L						
A. Human Resource Development and Management Efficiency												
7. Promote greater sense of community in the University	7.1 Strengthen the working relationship among all categories of staff	7.1.1 At least one consultative meeting organized per year for all categories of staff	<ul style="list-style-type: none"> Organise regular meetings to disseminate decisions of University Management to all staff	↑	.....	↑	25,000	<u>Registrar</u>			
				7.2 Ensure free flow of information on issues affecting members of the University Community	<ul style="list-style-type: none"> At least one social function organized per year 	↑	↑	30,000	<u>Registrar</u>		
						7.3 Encourage Unionised groups and student associations to organize joint social functions	<ul style="list-style-type: none"> Free flow of information among members of Unionised staff and students in the University 	↑	↑	20,000	
								↑	↑	30,000	<u>Registrar</u>

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY
				S	M	L		
A. Human Resource Development and Management Efficiency								
8. Increase visibility of the University	8.1 Provide bill boards at strategic locations in the country	8.1.1 Erect bill boards at vantage points in the country	<ul style="list-style-type: none"> One bill board erected in every regional capital	↑	.....	↑	50,000	<u>Registrar</u>
	8.2 Provide information through electronic/social media	8.2.1 Provide documentary of the University on television	<ul style="list-style-type: none"> TV documentary provided 3 times in a year	↑	.....	↑	30,000	<u>Registrar</u> ICT Unit
		8.2.2 Creating and maintaining facebook, twitter account for the University	<ul style="list-style-type: none"> Face book, twitter account created	↑	.....	↑	
	8.2.3 Building awareness of UMaT's accomplishments through digital communications, publications and other channels	<ul style="list-style-type: none"> Awareness of UMaT's accomplishments created	↑	.....	↑	50,000		
	8.3 Encourage outreach services of Academic and Student Affairs Unit	8.3.1 Provide outreach programmes to major Senior High School in Ghana and beyond	<ul style="list-style-type: none"> Outreach programmes to Senior High Schools provided	↑	.....	↑	10,000	<u>Registrar</u> Systems Analyst
		8.3.2 Target Girls' Senior High Schools with outreach programmes	<ul style="list-style-type: none"> Girls' Senior High Schools targeted	↑	.....	↑	10,000	
	8.4 Institute regular media encounters to promote visibility	8.4.1 Provide regular media encounters on programmes and events in the University	<ul style="list-style-type: none"> Regular media encounters instituted for University programmes and events	↑	.....	↑	20,000	<u>Registrar</u> Systems Analyst

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY
				S	M	L		
A. Human Resource Development and Management Efficiency								
	8.5 Improve the status of the University website	8.5.1 Making the University website more attractive and efficient	<ul style="list-style-type: none"> Posting achievements of alumni on website and other social media	↑	.....	↑	30,000	Registrar Systems Analyst
		8.5.2 Making online marketing strategies like Search Engine Optimization(SEO) and Search Engine Marketing (SEM)	<ul style="list-style-type: none"> Providing information to assist searches of the University via search engines.	↑	.....	↑	30,000	
		8.5.3 Linking website to popular institutions, eg VRA, Ghana Chamber of Mines, etc.	<ul style="list-style-type: none"> Linkage of website to popular institutions established 				Refer to C 8, 10 and 11	
	8.6 Improve research output/extension services of the University	8.6.1 Publishing major research and extension services of the University	<ul style="list-style-type: none"> Major research and extension activities published on website/other platforms	↑	.....	↑	50,000	Registrar Audio Visual Unit
	8.7 Strengthen and expand the international links of the University	8.7.1 The Unit of International Programmes to facilitate funding for staff development and research	<ul style="list-style-type: none"> Funds available from international sources to support staff development and research	↑	.....	↑	25,000	Vice Chancellor Dean, International Programmes
		8.7.2 Establish more affiliations with international professional bodies	<ul style="list-style-type: none"> Affiliations with international professional bodies established, eg International Council for Mining and Metals (ICMM), Clay Minerals Society, etc	↑	.....	↑	20,000	

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY	
				S	M	L			
B. Improvement of Infrastructure and Information and Communication Technology (ICT)									
9. Develop and maintain the infrastructure and facilities of the University	9.1 Expand teaching and administrative facilities	9.1.1 Build more lecture theatres, classrooms, laboratories and faculty offices	<ul style="list-style-type: none"> • Three lecture theatres, ten classrooms and ten laboratories built. • Faculty block completed	↑	.....	↑	2,000,000	Vice Chancellor Director of Works & Physical Dev. Deans Heads of Departments
				↑	↑			
				↑	↑			1,600,000
				↑	↑			
				↑	↑			
↑	↑							
9.2 Improve road network and power supply	9.2.1 Expand road network	9.2.1 Expand road network	<ul style="list-style-type: none"> • 10 km of road constructed	↑	.....	↑	2,500,000	Vice Chancellor Director of Works & Physical Dev.
				↑	↑			50,000
		9.2.2 Acquire and maintain Generator (100 kVA)	<ul style="list-style-type: none"> • One Generator Set acquired and maintained	↑	.....	↑		

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY
				S	M	L		
B. Improvement of Infrastructure and Information and Communication Technology (ICT)								
	9.3 Encourage development of hostels through private sector participation	9.3.1 Encourage Estate Developers to build, operate and transfer hostels	<ul style="list-style-type: none"> Two 250 capacity hostels built for students	↑	.....	↑	10,000,000	Vice Chancellor Director of Works & Physical Dev.
	9.4 Provide additional hostel accommodation on campus for female students through support from industry	9.4.1 Solicit assistance from Industry to build a hostel for female students on campus	<ul style="list-style-type: none"> One 250 capacity hostel built for female students	↑	.....	↑	5,000,000	Vice Chancellor Director of Works & Physical Dev.
	9.5 Develop sports and recreational facilities	9.5.1 Secure funding from GETFund/Mineral Development Fund to build sports and recreational facilities	<ul style="list-style-type: none"> Sports and recreational facilities built	↑	.....	↑	3,000,000	Vice Chancellor Director of Works & Physical Dev.

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY
				S	M	L		
B. Improvement of Infrastructure and Information and Communication Technology (ICT)								
	9.6 Institute routine maintenance programme to take care of University property	9.6.1 Institute routine maintenance of buildings, machinery and equipment 9.6.2 Give departments free hand to engage labour for regular maintenance and prompt repair of buildings, machinery and equipment	<ul style="list-style-type: none"> Buildings, machinery and equipment regularly maintained All equipment in departments in good working condition	↑	.....	↑	500,000	Director of Works & Physical Dev. Deans Heads of Departments Transport Officer Estate Officer
		9.6.3 Allocate adequate funds for maintenance	<ul style="list-style-type: none"> Departmental blocks renovated every 5 years	↑	.....	↑	1,000,000	
	9.7 Maintain equipment sharing scheme between departments and sections	9.7.1 Regularly take inventory of equipment that can be shared	<ul style="list-style-type: none"> Effective equipment sharing scheme between departments in place	↑	.....	↑	5,000	Heads of Departments

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY
				S	M	L		
B. Improvement of Infrastructure and Information and Communication Technology (ICT)								
	9.8 Acquire laboratory/field equipment and machinery	9.8.1 Solicit funds from Chamber of Mines, financial institutions and industries to equip laboratories and workshops	<ul style="list-style-type: none"> Improvement in equipment supply to departments	▲	.....▲	▲	20,000	Vice Chancellor Deans Heads of Departments University Relations Officer
		9.8.2 Purchase additional laboratory/field equipment and machinery	<ul style="list-style-type: none"> Additional laboratory/field equipment and machinery purchased	▲	.....▲	▲	3,000,000	
	9.9 Expand and modernise the facilities at the Library, Clinic and Basic School	9.9.1 Solicit funds from industries and NGOs to upgrade facilities at the Library, Clinic and Basic School	<ul style="list-style-type: none"> Improved facilities at the Library, Clinic and Basic School	▲	.....▲	▲	20,000	Vice Chancellor Director of Works & Physical Dev. University Relations Officer
		9.10 Privatise/commercialise municipal services	9.10.1 Modernise the sewerage system of the University 9.10.2 Identify new management for sections providing municipal services that could be privatised/commercialized	<ul style="list-style-type: none"> Sewerage system modernised Identified municipal services privatised/commercialized 	▲▲	▲	700,000 10,000	Vice Chancellor Director of Works & Physical Dev. Estate Officer

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY
				S	M	L		
B. Improvement of Infrastructure and Information and Communication Technology (ICT)								
10. Expand Information and Communications Technology (ICT) to all members of the University community.	10.1 Expand ICT infrastructure to keep pace with the development of the University.	10.1.1 Replace defective devices regularly with modern ones to keep pace with the technological development of the University.	<ul style="list-style-type: none"> All offices and lecture theatres adequately equipped with the state of the art ICT instruments and machinery 	↑			150,000	Vice Chancellor Head of Stores Finance Officer
	10.2 Institute regular courses in E-Learning, E-Library facility usage	10.2.1 Organise E-Library and E-Learning course per semester for staff	<ul style="list-style-type: none"> At least one E-Learning and E-Library course for staff 80% of all academic staff trained in E-Learning and E-Library facility usage	↑	.....		15,000	Librarian Dean, POAU Head of ICT Unit
	10.3 Enhance access to Internet facilities	10.3.1 Increase the bandwidth when the need arises.	<ul style="list-style-type: none"> Adequate network bandwidth provided 	↑			400,000	Vice Chancellor Head, ICT Unit

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY	
				S	M	L			
B. Improvement of Infrastructure and Information and Communication Technology (ICT)									
11. Develop the new site of the University	11.1 Develop road network	11.1.1 Construct access roads	<ul style="list-style-type: none"> 10 km road network construction 	▲	▲	▲	8,000,000	Vice Chancellor Finance Officer	
		11.1.2 Construct internal road networks	<ul style="list-style-type: none"> 10 km road network constructed 	▲	▲	▲	8,000,000		
	11.2 Provide electricity, water, sewage systems and ICT facilities	11.2.1 Extend electricity to the new site	11.2.1.1 1600 kVA transformer installed	<ul style="list-style-type: none"> 1600 kVA transformer installed 	▲	▲	▲	50,000	Vice Chancellor Finance Officer
			11.2.1.2 Erection of poles and cabling	<ul style="list-style-type: none"> Erection of poles and cabling 	▲	▲	▲	100,000	
		11.2.2 Construct water supply system	11.2.2.1 Two 3 million litre reservoirs constructed	<ul style="list-style-type: none"> Two 3 million litre reservoirs constructed 	▲	▲	▲	100,000	
			11.2.2.2 Two pump stations constructed	<ul style="list-style-type: none"> Two pump stations constructed 	▲	▲	▲	75,000	
	11.3 Provide solar and other renewable energy	11.3.1 Adopt renewable energy system	11.3.1.1 Pipelines network constructed	<ul style="list-style-type: none"> Pipelines network constructed 	▲	▲	▲	900,000	Vice Chancellor Finance Officer
			11.3.1.2 Renewable energy adopted.	<ul style="list-style-type: none"> Renewable energy adopted. 	▲	▲	▲	10,000,000	
			11.3.1.3 Central Reservoir system constructed	<ul style="list-style-type: none"> Central Reservoir system constructed 	▲	▲	▲	300,000	
			11.3.1.4 Waste delivery network constructed	<ul style="list-style-type: none"> Waste delivery network constructed 	▲	▲	▲	300,000	
11.3.3 Provide ICT infrastructure	11.3.3.1 WAN network constructed	<ul style="list-style-type: none"> WAN network constructed 	▲	▲	▲	1,000,000			

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY	
				S	M	L			
B. Improvement of Infrastructure and Information and Communication Technology (ICT)									
	11.4 Building of students village	11.4.1 Encourage estate developers to build, operate and transfer (BOT) hostels	<ul style="list-style-type: none"> Two 500 capacity hostels built for students One 500 capacity hostel built for female students	↑	.....	.....	24,000,000	Vice Chancellor <u>Finance Officer</u>
				11.4.2 Secure funding from GETFund/ Mineral Development Fund to build sports, recreational facilities and commercial centre	↑	12,000,000	
					↑	5,000,000	
					↑	2,000,000	
	11.5 Build staff residential facilities	11.5.1 Secure funding from GETFund/ Mineral Development Fund to build staff residential facilities	<ul style="list-style-type: none"> 50 staff bungalows with recreational centres built	↑	.....	.....	2,000,000	Vice Chancellor <u>Finance Officer</u>
				11.6 Build teaching and administrative facilities	11.6.1 Build lecture theatres, classrooms, laboratories and faculty offices	<ul style="list-style-type: none"> Five lecture theatres, ten classrooms and ten laboratories built. Faculty block completed One administration block completed Transport yard build.	↑	.....	.....	18,000,000	Vice Chancellor Finance Officer
↑	.....	.....	1,800,000					
↑	.....	.....	3,500,000					
↑	.....	.....	150,000					
		11.6.2 Complete administration block and build a transport yard							

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY	
				S	M	L			
B. Improvement of Infrastructure and Information and Communication Technology (ICT)									
12. Establishment of the School of Petroleum Studies and other Faculties/Schools	12.1 Build lecture rooms, laboratories and offices	12.1.1 Source funds from GNPC, Petroleum Commission, Tullow, Kosmos Energy, Schlumberger and other organisations to construct two 2-storey buildings.	<ul style="list-style-type: none"> Two 2-storey buildings constructed	↑	.....		3,000,000	Vice Chancellor Dean
	12.2 Acquire laboratory and office equipment	12.2.1 Source funds from GNPC and other organisations to procure and install laboratory and office equipment	<ul style="list-style-type: none"> Petroleum engineering laboratory up-graded. Gas engineering laboratory established. Petroleum Geosciences Engineering Laboratory Petroleum refining systems engineering laboratory established.	↑	.....		3,500,000 1,500,000 2,500,000 2,500,000	Vice Chancellor Dean
	12.3 Recruit staff and develop curricula	12.3.1 Sourcing of funds from GNPC and other organisations to recruit, develop staff and curricula	<ul style="list-style-type: none"> Up to 30 lecturers and 10 administrative and technical staff At least 80% of staff with PhDs All programmes running	↑	.....	↑	1,000,000	Vice Chancellor Dean HOD
					↑		20,000	
					↑			

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY
				S	M	L		
B. Improvement of Infrastructure and Information and Communication Technology (ICT)								
	12.4 Build lecture rooms and offices for new Faculties/Schools	12.4.1 Source of funds from GoG and other organisations to construct buildings.	<ul style="list-style-type: none"> Buildings constructed	▲	.....	.....▲	22,405,000	<u>Vice Chancellor</u> <u>Dean</u> <u>HOD</u>
	12.5 Acquire laboratory and office equipment for the Faculties/Schools	12.5.1 Source funds from GoG and other organisations to procure and install laboratory and office equipment	<ul style="list-style-type: none"> Laboratories and offices equipped and generating revenue	▲	.....	.....▲	20,120,000	<u>Vice Chancellor</u> <u>Dean</u> <u>HOD</u>
	12.6 Recruit staff and develop curricula	12.6.1 Source funds from GoG, other organisations and IGF and to recruit, develop staff and curricula	<ul style="list-style-type: none"> Teaching, technical and administrative staff recruited	▲	.....	.....▲	1,000,000	<u>Vice Chancellor</u> <u>Dean</u> <u>HOD</u>

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME				BUDGET ESTIMATES (\$)	RESPONSIBILITY
				S	M	L			
C. Improvement in Teaching, Research and Extension Activities									
13. Encourage multi-disciplinary research programmes and establish linkages with the extractive and allied industries	13.1 Promote inter-departmental research	13.1.1 Identify inter-departmental research projects	<ul style="list-style-type: none"> Inter-departmental collaboration in research is established 	↑	10,000	<u>Vice Chancellor</u> <u>Deans</u> <u>Heads of Departments</u> <u>Head, University</u> <u>Relations</u>	
		13.1.2 Write and discuss joint research proposals at departmental levels	<ul style="list-style-type: none"> Joint research proposals at Department levels written	↑	.....	.....	10,000
		13.1.3 Solicit funds for collaborative research from the industry and donors	<ul style="list-style-type: none"> At least two departmental collaborative research funds solicited per year	↑	.....	.....	150,000
	13.2 Strengthen collaborative research with other Universities and Industry	13.2.1 Identify collaborative research projects	<ul style="list-style-type: none"> At least 3 collaborative research projects identified per year 	↑	20,000	<u>Vice Chancellor</u> <u>Deans</u> <u>Heads of Departments</u> <u>Head, University</u> <u>Relations</u>	
		13.2.2 Write and discuss joint research proposals with collaborative Universities and Industry	<ul style="list-style-type: none"> Joint University/Industry collaborative research reports published	↑	.....	.....	10,000
		13.2.3 Solicit funds from national and international sources for collaborative research with other Universities	<ul style="list-style-type: none"> Funds from national and international sources solicited for collaborative research with other Universities	↑	.....	.....	30,000

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY
				S	M	L		
C. Improvement in Teaching, Research and Extension Activities								
14. Expand post-graduate training	13.3 Institutionalise Technology and Innovation Fairs	13.3.1 Organise technology and innovation fairs involving the extractive and allied industries	<ul style="list-style-type: none"> Technology and innovation fairs organised annually	↑	.....↑	↑	100,000	Vice Chancellor Deans Heads of Departments Head, University Relations
	13.4 Creating linkages with the extractive and allied industries for consultancy, workshop and training	13.4.1 Organise workshops and training sessions in collaboration with the extractive and allied industries	<ul style="list-style-type: none"> Training sessions and workshops organised annually	↑	.....↑	↑	30,000	Vice Chancellor Deans Heads of Departments Head, University Relations
	14.1 Sensitization of academic staff for postgraduate education	14.1.1 Employ the right mix of qualified staff to teach and supervise postgraduate programmes	<ul style="list-style-type: none"> Increased staff participation in postgraduate education	↑	.....↑	↑	50,000	Deans Heads of Departments Head of Human Resources Unit
	14.2 Expand teaching and research facilities	14.2.1 Provide additional facilities for postgraduate training	<ul style="list-style-type: none"> Postgraduate training facilities enhanced	↑	.....↑	↑	1,500,000	Vice Chancellor Dean, Postgraduate Studies Heads of Departments
		14.2.2 Increase post-graduate enrolment	<ul style="list-style-type: none"> Postgraduate students constitute 25% of total student enrolment	↑	.....↑	↑	10,000	
	14.3 Institute scholarships and bursaries for postgraduate students to enable them take care of their expenses	14.3.1 Institutionalise and manage scholarship and bursary schemes	<ul style="list-style-type: none"> 25% of Postgraduate students granted scholarships and bursaries	↑	.....↑	↑	100,000	Vice Chancellor Finance Officer

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY
				S	M	L		
C. Improvement in Teaching, Research and Extension Activities								
	14.4 Provide adequate remuneration for post-graduate students' supervision to enable lecturers effectively play the role of supervisors	14.4.1 Solicit research grants and scholarships for postgraduate studies from GETFund, industry and donors	<ul style="list-style-type: none"> Research grants, scholarships and bursaries available from GETFund, industry and donors for postgraduate studies	↑	.....	↑	1,000,000	Finance Officer Vice Chancellor
	14.5 Attract support from industry for postgraduate research and training	14.5.1 Liaise with Chamber of Mines and industry for equipment for post-graduate studies	<ul style="list-style-type: none"> Equipment available for postgraduate studies	↑	.....	↑	10,000	Vice Chancellor
	14.6 Strengthen the capacity of School of Postgraduate Studies	14.6.1 Establish capacity building programme for School of Post-graduate Studies	<ul style="list-style-type: none"> Management of Post-graduate education improved	↑	.....	↑	8,000	Dean Postgraduate Studies
	14.7 Encourage development of joint postgraduate programmes and networking with local and foreign institutions of higher learning	14.7.1 Establish joint postgraduate training programmes with local and foreign institutions of higher learning	<ul style="list-style-type: none"> Joint postgraduate programmes established with local and foreign institutions of higher learning	↑	.....	↑	100,000	Vice Chancellor Deans Heads of Departments

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY
				S	M	L		
C. Improvement in Teaching, Research and Extension Activities								
15. Provide effective consultancy services and establish Technology Development and Training/Transfer Centre	15.1 Develop, package and market the consultancy capabilities of the University	15.1.1 Prepare consultancy brochures for all departments	<ul style="list-style-type: none"> • Consultancy brochures prepared • Earnings from consultancies increased by 30% 	↑	↑	↑	30,000	Heads of Departments
		15.2 Consult and design short courses for the industry	<ul style="list-style-type: none"> • Short courses for the industry running 	↑	↑	↑	20,000	Heads of Departments
	15.3 Design appropriate technologies for the Artisanal and Small-Scale mining and allied industries	15.3.1 Visit and assess needs of small-scale mining industries	<ul style="list-style-type: none"> • Report on needs of small-scale mining and allied industries 	↑	↑	↑	15,000	Heads of Departments
		15.3.2 Conduct research into small-scale mining technology	<ul style="list-style-type: none"> • Research findings on small scale mining published 	↑	↑	↑	10,000	
		15.3.3 Introduce the use of appropriate technologies for the small-scale-mining and allied industries	<ul style="list-style-type: none"> • Appropriate technologies for target groups in place 	↑	↑	↑	20,000	
		15.3.4 Organise workshops for Artisanal and Small-Scale miners.	<ul style="list-style-type: none"> • At least two workshops organised for small-scale miners yearly 	↑	↑	↑	200,000	

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME				BUDGET ESTIMATES (\$)	RESPONSIBILITY
				S	M	L	I		
C. Improvement in Teaching, Research and Extension Activities									
		15.3.5 Collaborate with the Minerals Commission for projects on small-scale mining	<ul style="list-style-type: none"> Collaboration with Minerals Commission in place	↑	.....	.....	20,000	Heads of Departments
		15.3.6 Access BUSAC funds for research on Artisanal and Small-Scale mining through Minerals Commission and Industry Association	<ul style="list-style-type: none"> BUSAC funds accessed for Artisanal and Small-Scale mining research through Minerals Commission and Industry Association	↑	.....	.....	50,000	Head, University Relations
	15.4 Monitor consultancy services	15.4.1 Establish a Consultancy Unit to coordinate all consultancy activities in the University	<ul style="list-style-type: none"> Consultancy Unit established	↑	.....	.....	20,000	Vice Chancellor Deans, Head, Consultancy Unit
		15.4.2 The Unit to market consultancy capabilities at UMaT	<ul style="list-style-type: none"> The University attracting consultancies to the tune of at least \$ 200,000 per year	↑	.....	.....	30,000	
	15.5 Establish Technology Development and Training/Transfer Centre	15.5.1 Build physical facilities for the Centre	<ul style="list-style-type: none"> Workshop and office for the Centre built 	↑			10,500,000	Vice Chancellor Deans, Head, Consultancy Unit	
		15.5.2 Provide requisite equipment for the facilities	<ul style="list-style-type: none"> Facilities equipped and maintained 	↑			30,000		
		15.5.3 Operate the Centre	<ul style="list-style-type: none"> Centre in operation 	↑			10,000		

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY
				S	M	L		
C. Improvement in Teaching, Research and Extension Activities								
16. Provide quality teaching and research	16.1 Inter-library linkage for research materials	16.1.1 Increase access to inter-library linkage for teaching and research materials	<ul style="list-style-type: none"> Enhanced access to teaching and research materials Adequate books, journals and other research materials provided at the Library	↑	.....↑	.....↑	100,000	Heads of Departments Head, Computer Unit Librarian
	16.2 Provide adequate funding for the acquisition of journals, books, modern equipment for the Library	16.2.1 Allocate 10% of academic facility user fees and 10% of University budget to library for the purchase of books, journals and other research materials	<ul style="list-style-type: none"> Increase in funds for the library	↑	.....↑	.....↑	100,000	<u>Finance Officer</u> <u>Librarian</u>
	16.3 Improve teaching skills of academic staff and enhance their research capacity	16.3.1 Strengthen regular interaction between experienced staff and young faculty members through seminars, workshops etc 16.3.2 Provide vehicles for field visits and research	<ul style="list-style-type: none"> Output of teaching improved Fifteen (15) Pickups, Three (3) Station wagons, five (5) 15-Seater buses purchased	↑	.....↑	.....↑	10,000 1,000,000	<u>Vice Chancellor</u> <u>Deans</u>

OBJECTIVES	STRATEGIES	ACTIVITIES	INDICATORS/ OUTPUTS	TIME FRAME			BUDGET ESTIMATES (\$)	RESPONSIBILITY
				S	M	L		
C. Improvement in Teaching, Research and Extension Activities								
16.4 Institute awards for good staff performance		16.4.1 Create research fund to be funded by industry	• All lecturers publish at least one paper per year	↑			10,000	Vice Chancellor Finance Officer Registrar Deans
		16.4.2 Offer awards for excellent teaching and research	• Excellence awards received by teaching and research staff each year	↑	.....	.....	50,000	
		16.4.3 Present awards for excellent performance of staff	• Excellence awards received by non teaching staff each year	↑	.....	.....	100,000	
16.5 Extend Information and Communications Technology facilities to offices of academic staff to facilitate access to databases and libraries of other institutions of higher learning and research.		16.5.1 Complete installation of local area network for Internet connection	• Installation of local area network completed	↑			100,000	Vice Chancellor Head, Computer Section
		16.5.2 Equip all offices of academic staff and senior administrative staff with Information technology facilities	• Offices of academic/administrative staff equipped with Information Technology facilities	↑	.....	.....	100,000	

Table 6.2 SUMMARY OF ESTIMATE OF COST OF SPLAN2K24

SUMMARY OF ESTIMATES OF COST OF SPLAN2K24				
Strategic Priorities	Short Term	Medium Term	Long Term	Total Cost (\$)
	2015-2017 (\$)	2018-2020 (\$)	2021-2024 (\$)	
Human Resources Development	4,485,600	4,325,600	5,450,800	14,262,000
Improvement of Infrastructure and Information and Communications Technology	72,294,500	71,744,500	55,896,000	199,935,000
Improvement in Teaching, Research and Extension Activities	12,149,900	1,499,900	1,913,200	15,563,000
Total Cost (\$)	88,930,000	77,570,000	63,260,000	229,760,000

SECTION SEVEN

STAKEHOLDERS, RESOURCE IMPLICATIONS AND CONCLUSION

7.1 Involvement of Stakeholders

In order to achieve the broad objectives and, therefore, the mission, the University will aim at involving all stake-holders including the industrial and business communities, the professional bodies, the Alumni, NGOs, Donor Agencies, government ministries, departments and agencies (MDAs), staff and students.

The University can start implementing the activities towards the achievement of its objectives through the use of its current staff, teaching space and facilities, infrastructure and equipment. Additional resources and staff will, however, be required in order to fully implement the activities.

Detailed information on the resource implications are given in Table 6.2

7.2 Sources of Funds

The major source of funding shall be from the Government of Ghana. Other identified sources of funds for the University over the plan period include internally generated funds (IGF), the Ghana Chamber of Mines, the mining, petroleum, and allied industries (e.g. telecommunication organisations), the business community, the banking industry, the professional bodies, the Alumni, the NGOs and international development partners. It is expected that the University will diversify its sources of income and reduce its dependence on Government subvention.

7.3 Responsibility

The primary responsibility of the implementation of the Plan lies with the Vice Chancellor. The operational matrix of the Plan is the responsibility of Management team of the University. The Academic Board, Faculty Boards, Departmental Boards and other statutory Units of the University will play important roles in achieving the stated goals/targets.

7.4 Prioritisation Of The Strategic Plan

In view of resource constraints, the priorities of the University during the Plan period will be in the order as listed:

- i. Income generation through provision of consultancy services and middle level manpower training for the extractive industry in order to reduce the University's dependency on government subvention. Through this, linkages will be established with the industry.

- ii. Attract, develop, motivate and retain high calibre staff (academic and non-academic) in order to provide quality teaching and research to enhance the learning process.
- iii. Develop and regularly improve infrastructure to keep pace with current technological advancement to promote effective training, teaching and research as well as to maintain the natural environment and improve upon the beauty of the University campus.
- iv. Increase student enrollment and promote female participation in all programmes.
- v. Promote the visibility of the University.
- vi. Strengthen the Alumni Association whose activities enrich the University's ethos and development.

7.5 Conclusion

The University aims to lead Ghana and Africa in research and education in the extractive industry. To meet its aspirations, it has adopted seventeen objectives under three strategic priorities namely, human resource development and management efficiency, improvement of infrastructure and information and communication technology, and excellence in teaching, research and extension activities. These strategic priorities embody the activities that will facilitate the achievement of the planned objectives. The general framework for the implementation of the strategic plan has been divided into short-term, medium-term and long-term. While new partnerships with stakeholders are being sought, the existing ones are being strengthened.

**Members of the Committee for the Preparation of Strategic Plan
for UMaT 2015 to 2024 SPLAN2K24**

Dr Joyce R. Aryee	- Government Nominee on Council	- Chairman
Prof Nii Noi Dowuona	- NCTE Rep on Council	- Member
Assoc Prof S. Al-Hassan	- Pro Vice Chancellor	- Member
Assoc Prof V. A. Temeng	- Convocation Rep	- Member
Mr Sulemanu Koney	- Rep of Ghana Chamber of Mines	- Member
Mr Andrews K. Doku	- Ag Registrar	- Secretary

