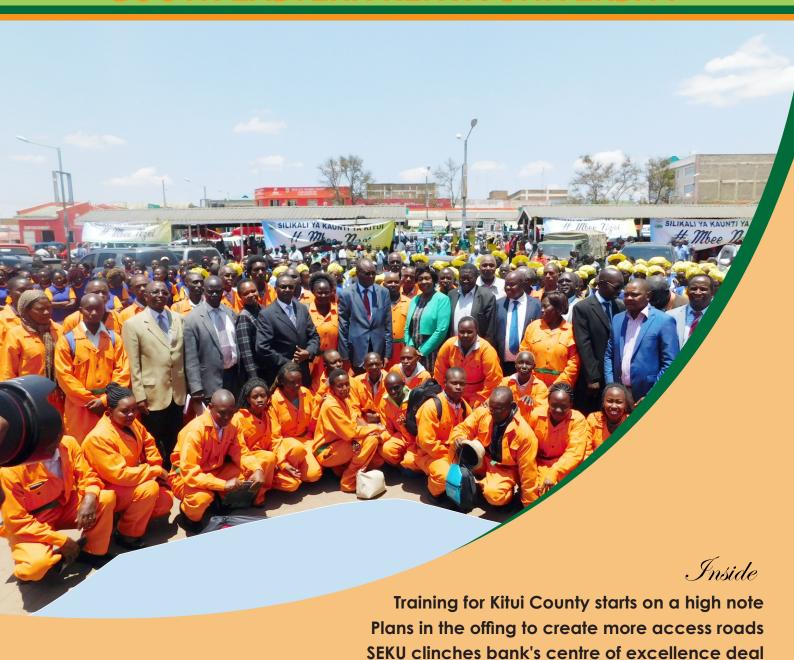


A newsletter from the Office of the Vice-Chancellor

### SOUTH EASTERN KENYA UNIVERSITY



January – March 2019

**ASALI Project supports curriculum review training** 

SEKU signs deal with yet another Chinese university

Our Vision

To be a globally competitive centre of excellence in teaching, research, innovation and service

Our Mission

To provide quality education through teaching, research, extension, innovation and entrepreneurship with emphasis on dry land agriculture, natural resources and environmental management

Core Values

Professionalism
Innovation
Integrity
Freedom of thought
Teamwork
Respect for conservation of environment

Our Motto
Arid to Green—Transforming Lives



- Main Campus: Kwa Vonza, Off Machakos-Nairobi Road, Mail: registrar-academic@seku.ac.ke or dvc-arsa@seku.ac.ke
- Kitui Town Campus: Ngonde Building 3 rd. and 4th Floor, Kilungya Street, Tel: +254 705 502557/044-4422699 E-mail: kituitowncampus@seku.ac.ke
- Wote Town Campus: Soi Plaza, 2<sup>nd</sup> Floor, Tel: +254 704122140, E-mail: wotecampus@seku.ac.ke
- Mtito Andei Campus: Along Nairobi-Mombasa Road, Tel: +254 722 606398, E-mail: mtito-andeicampus@seku.ac.ke

### Editor's Note

## Contents

Editor's Note
Word from the Vice-ChancellorPage 2
Training for Kitui County starts on a high notePage
SEKU signs deal with yet another Chinese UniversityPage
SEKU hosts Compassion games tournamentPage 5
2018 - 2019 Freshers ushered in
New structures take effect in academic, administrative
units Page
SEKU don takes charge at new varsity collegePage 8
Plans in the offing to create more access roadsPage 9
SEKU clinches bank's "centre of excellence" dealPage
SEKU's pioneer nursing students start classPage 10
SEKU participates in RUFORUM parleyPage 1
ASALI project supports curriculum review trainingPage 12
VC rolls his sleeves, charts path for oriented researchPage 1
Hygienic bees are healthy beesPage 1
Your tea need not be expensive - ExpertPage 1

### **Editorial Team**

Osir Otteng Jeanne Minoo

### **Contributors**

Dr. Eliud Muli Dr. Julius Kilungo Dr. Josphert Kimatu

SekuNews is published as a newsletter by the Office of the Vice-Chancellor P.O. Box 170 – 90200, Kitui, Kenya Tel: +254 748 605 996 or +254 748 605 997.

© SEKU 2019

E-mail: publicrelations@seku.ac.ke

Once again, the editorial team extend our warm welcome to our readers to yet another issue of SekuNews. As usual, we are delighted to share with SEKU stakeholders the activities that have preoccupied the University community in the past couple of months.

SEKU remains focused on forging partnerships, community service and outreach. Our pact with the County Government of Kitui is already paying dividend with the launch of training in mining and ICT.

The University's recent selection to host the African Development Bank's technology and entrepreneurship project is a major boost to the quest for high level partnership.

On the academic front, the University has launched the latest programme – the BSc. in Nursing, which, it is envisaged, will go a long way in opening up more learning opportunities. Besides SEKU has continued to engage in cutting-edge research geared towards finding solutions to livelihood challenges among the rural communities.

The University has also renewed its partnership arrangement with China's Lanzhou University for the purposes of enhancing our research capacity among other undertakings.

On staff development, the ASALI project sponsored a one-week curriculum review training programme, a move aimed at ensuring that the faculty is exposed to emerging issues in the existing and new curricula, and understanding of how the priority aspects are conveyed in classrooms and to other stakeholders.

Our staff have remained on the ascendancy mode. Director of Linkages and International Programmes, Prof. Thomas Akuja clinched a senior appointment as the chief executive officer of the newly established Turkana University.

Osir Otteng

# Reaching out to all for partnership to meet our set goals

his is yet another issue of our corporate newsletter, through which we share with our stakeholders insight into what we are doing in various fronts as we strive towards the fulfillment of our mandate to provide quality education through teaching, research, extension, innovation and entrepreneurship.

We at South Eastern Kenya University, recognise the fact that our success in fulfilling our mandate to society lie in our ability to forge and strengthen meaningful partnerships.

We have, therefore, continued to reach out to like-minded organisations and institutions at both local and international levels with a view to finding common grounds on which we can anchor our cooperation for our mutual benefit.

Already the partnership agreement that we signed with the County Government of Kitui in the month of August last year has begun to bear fruits as seen in the training programmes already on course.

The already concluded artisanal mining training and the computer programme training are just but the beginning of this multi-faceted deal.



We thank the Government of Kitui County for remaining open and focused on working with our University to explore many avenues of imparting knowledge and skills to the youth of this region.

The highly productive youth development partnership with the African Development Bank is another important step in the right direction as it set our University on the right path to make a significant impact on the lives of the youth of Kenya.

On the international front, SEKU will continue to knock on doors of prospective partners, particularly well-established institutions with shared academic and research goals. We envisage abundant dividends from our renewed partnership with the China's Lanzhou University, particularly in the areas of dryland agriculture and environmental management.

Welcome aboard.

Prof. Geoffrey Muluvi, PhD Vice-Chancellor



### Training for Kitui County starts on a high note

South Eastern Kenya University rolled out its short courses training in October. The university is offering short courses to Kitui County Government sponsored learners on Information, Communication and Technology (ICT) and artisanal mining



Hon. Ngilu and Prof. Muluvi before flagging off the different groups of trainees at the Kitui town bus park.

The training, which is targeting the youth, is aimed at imparting knowledge and developing skills necessary for the job market and for the running of successful businesses.

While flagging off the 150 eager learners, Kitui County Governor, Hon. Charity Ngilu, said that the County Government aims at dealing with the root causes of poverty by undertaking capacity building programmes among the youth and other residents of Kitui County and enhancing vocational skills through meaningful training.

She added that the youth make up the larger percentage of the unemployed therefore developing digital entrepreneurship and creating new job opportunities for them is critical for Kitui's transformative growth.

The Vice-Chancellor, Prof. Geoffrey Muluvi said the institution was ready with facilities and expertise to train the learners.

He urged the students who don't meet the criteria and admissible marks to join universities not to shy away from taking up the skills development course. Prof. Muluvi added that the university is working towards the establishment of such tailor-made courses which would be of great benefit especially to the youth of Kitui County.

The collaboration with the County Government is the beginning of the many beneficial agreements that the university will undertake with the county government.

The County Government is aiming to sponsor 1,000 learners for short courses in ICT and 950 others for artisanal mining courses in a year's time. The courses will run for a period of eight and two weeks respectively.



Members of the 2<sup>nd</sup> cohort of the artisanal mining training programme pose for a photograph upon receiving their certificates



## **SEKU signs deal with yet another Chinese varsity**

South Eastern Kenya University has signed a partnership agreement with a Chinese university signaling SEKU's quest for increased multi-faceted collaborations locally and internationally.

In a pact signed in September South Eastern Kenya University and Lanzhou University will pursue a five-point collaboration plan, which will see the two institutions: i) exchange of faculty, administrative staff and students; ii) collaborate on postgraduate training and education; iii) engage in joint research projects; iv) exchange academic information and materials; and v) promotion of academic cooperation.

South Eastern Kenya University Vice-Chancellor, Prof. Geoffrey Muluvi and Lanzhou University President, Prof. Chun-Hua Yan, signed the five-year memorandum of understanding, under which SEKU's students will have a chance to pursue postgraduate studies in the partner institution.

Speaking during the signing ceremony which took place at Prof. Yan's office, Prof. Muluvi expressed optimism that the academic, educational and cultural exchange arrangement between the two universities would give them greater impetus to persue their objective in research and innovations.

While in China, Prof Muluvi also attended and made a key note address at the 2018 International Conference of Ecological Civilization, which focused on ethical and sustainable exploitation of natural resources such as water sources, wildlife and forests.

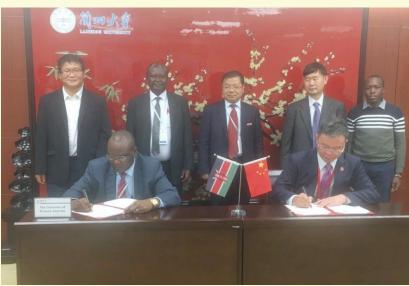
The conference came up with the five-point Lanzhou Initiative of Ecological Civilization and Plan of Action, which include:

 the establishment of the United Nations Environmental Programme – Belt and Road (UNEP-B&R) Consortium of Ecological Civilization (2019-20220;

- ii. the construction of the shared ecological information database (2018-2022)
- iii. the promotion of exchange and cooperation among universities, government and NGOs
- iv. the enhancement of the collaboration in the think-tank of ecological civilization (2018-2022) and
- v. the creation of "green fund" to sponsor the ecosystem sustainability efforts (2018-2022)

The partnership with Lanzhou University comes a few months after SEKU signed a collaboration deal with another Chinese university, the University of Electronic Science and Technology of China, clearing the way for staff and student exchange, joint research undertakings and research publications, technology transfer and equipment among other areas of mutual interest.

Already, three SEKU lecturers have got scholarships to study at UESTC. Casper Shikali, Damaris Kangogo and Albert Kenya traveled to China last September to begin their programmes. Mr. Shikali, an assistant lecturer in the School of ICT will undertake a three-year doctoral programme, while Kangogo and Kenya, graduate assistants, also from the school, will be there for two years to pursue their master's degree programmes in ICT.



Prof. Muluvi (sitting left) and President Yan (sitting right) sign the MoU. Dr. Nguluu (standing 2<sup>nd</sup> from left) looks on.

# SEKU hosts global faith-based body's games tourney

outh Eastern Kenya University' main campus was a beehive of activity in the month of August when the University hosted an international organisation for its annual games tournament.

Over 800 primary, secondary and university students sponsored by the Compassion International gathered at the University for the finals of the 2018 regional and national sports tournaments.

SEKU beat a raft of contenders in the bid to host the games coming tops because of its unique location, away from the bustle and distractions of urban life, expansive sports fields appropriate for all sports activities enough accommodation facilities, not to mention the outstanding security network.

Compassion International is a global faith based organization, with a mission to provide Kenyan children with the opportunity to rise above their circumstances and become all God has created them to be. According to profile on its website, Compassion has over 115,000 sponsored children distributed across more than 400 child development centers.

Throughout the week-long tournament the entire team of over 1400 learners, trainers, teachers, couches, referees volunteers and Compassion staff drawn from all parts of the country were accommodated within the University, making SEKU a huge national sports village.

The young sportsmen and women participated and displayed their prowess in indoor games, ball games and athletics.

SEKU's director of catering and accommodated services, Prof. Dorothy Mutisya, who chaired the internal organising committee for the tournaments told SekuNews that hosting such a huge event was an eye opener for the University.

"The event has given us an important insight into the potential the University has in hospitality services. We now need to go out and market the University as a venue for sports," Said Prof. Mutisya.

In his address to the games participants during the closing ceremony, Compassion International Kenya country director, Mr. Joel Macharia was full of praise for South Eastern Kenya University for offering its services "beyond our expectations."

He said his organisation upholds sports as a key component in a child's development, and expressed optimism in working with the University to come up with structured forms of cooperation for the ultimate good of children.

The vice-chancellor, Prof. Geoffrey Muluvi, invited the learners to consider South Eastern Kenya University as their university of choice for their next level of education, extolling SEKU's peaceful learning environment, modern physical facilities and a pool of top notch faculty, which is a true recipe for quality education.

"Ours is a peaceful university, which has not experienced any student and staff strikes since its inception, a fact that has assured our student of completing their studies within schedule," said Prof. Muluvi.



A team celebrates at the close of the national tournament

### 2018/2019 'freshers' ushered in

The 2018/2019 first year student reported in September ready to begin their academic journey. The week-long registration process saw the University register 1085 student in various undergraduate programmes.

They University has grown in size and scope and how has a total of eight schools and several academic and administrative departments catering for over 8,000 students distributed in four campuses in Kitui, Maueni and Machakos counties, offering a wide of programmes from certificates to PhDs. The school so include:

- o School of Business and Economics
- o School of Education, Humanities and Social Sciences
- o School of Pure and Applied Sciences
- o School of Water, Environment and Natural Resources
- o School of Nursing Science and Public Health
- o School of Agriculture and Veterinary Sciences

During the matriculation ceremony,

the Vice-Chancellor, Prof. Geoffrey Muluvi assured the learners that there is an available strong team of professors and lectures, to teach and mentor them to fulfil their academic dreams.

He added that diversity is not about how we differ but embracing and appreciating each other's uniqueness and enriching ourselves with others tremendous body of knowledge. He encouraged togetherness as one big family among the students.

The Vice Chancellor wished the students a productive stay at South Eastern Kenya University and



Prof. Muluvi (in gown) with a section of the "freshers"

## Student develops SEKU mobile application

Enquiries at South Eastern Kenya University can now be done hustle-free at the touch of a button - and at no cost, thanks to the innovative mind of a SEKU student. Third year information and communication technology student, Ezra Opande (pictured) developed a versatile mobile application that facilitates easy access to information about the University.

All you need is a smart phone and with it you do not need to have internet bundles or credit to call or send messages.

SEKU Mobile App is an android mobile application designed by a SEKU student with the aim of helping boost service delivery to a diverse range of customers.

Speaking when he unveiled his novelty before the University Management, staff and students, Mr. Opande said that the greatest feature of the application is its cost-free nature which enhances its

utility.

"The fact that the app's content is 56% offline based makes it easier to access even in areas where there's little or no internet coverage," remarked Mr. Opande.

The app has 15 distinct icons on the homepage, which makes it easier for navigation.

Some of the services accessible through the app are:

- Academic programmes
- Portals
- Library Services
- Campuses
- Admissions
- E-learning
- SEKU newsletter
- ICTSupport
- Fee Payment options

The SEKU social media platforms, which includes Facebook, Google+, Twitter, YouTube, Flickr and the website, are also accessible through the application.

"The application allows users to make direct calls and send direct emails to the university. Emergency contact details are also indicated in the application," said Opande.





# New structures take effect in academic, administrative units

he University council has approved a new structure for the academic and administrative units of the University for Smooth running of the University affairs.

In the new structure some schools have been merged while departments and sections have been absorbed by others in a move that the Vice-Chancellor, Prof. Geoffrey Muluvi says is aimed at ensuring prudent ultilisation of available resources for maximum output.

In a circular to staff, the Vice-Chancellor announced the new arrangements, Prof. Muluvi assured staff and students that no section of the University will be affected negatively. Instead the VC said: the aim of the restructuring is to enhance efficiency and cost effectiveness of our operations with a view to providing quality service to our customers."

Prof. Muluvi gave the assurance that although the number of schools and academic departments have been reduced, the academic programmes have not been affected, saying that in fact the number of academic programmes hosted by the department may have increased.

Also affected are administrative units, whose number has gone down significantly to reflect the Management's focus on infusing efficiency and productivity.

School	Departments
Agriculture and     Veterinary Sciences	<ul><li>Agricultural Sciences</li><li>Food Science, Nutrition and Technology</li></ul>
2. School of Business and Economics	<ul><li> Management Sciences</li><li> Economics</li><li> Business and Entrepreneurship</li></ul>
3. Education, Humanities and Social Sciences	<ul> <li>Educational Administration and Planning</li> <li>Educational Psychology</li> <li>Educational Foundation</li> <li>Educational Communication and Technology</li> <li>Sociology, Anthropology and Community Development</li> <li>Geography, History and Religious Studies</li> <li>Linguistics and Literature</li> <li>Kiswahili and other African Languages</li> </ul>

4. Pure and Applied Sciences	<ul><li>Life Sciences</li><li>Physical Sciences</li><li>Mathematics &amp; Actuarial Science</li></ul>		
5. Environment, water and Natural Resources	<ul> <li>Hydrology and Aquatic Sciences</li> <li>Environmental Science and Land Resource Management</li> <li>Geology and Meteorology</li> </ul>		
6. Engineering and Technology	Civil Engineering Electrical Engineering Mechanical Engineering Clothing and Textiles		
7. Information and Communication Technology	<ul> <li>Computer Science and Software Engineering</li> <li>Telecommunication and Information Technology</li> </ul>		
8. Nursing Sciences and Public Health	<ul><li>Nursing</li><li>Public Health</li></ul>		

Divisions	Sections			
Office of the Vice- Chancellor	<ul><li>Public Relations</li><li>Council Secretariat</li><li>Administration/Liaison</li><li>Internal Audit</li></ul>			
Administration and Human Resource Management Division	<ul> <li>Legal Affairs</li> <li>Human Resource Management</li> <li>Central Services</li> <li>Transport</li> <li>Health Services</li> <li>Security</li> </ul>			
Finance Planning and Development Division	Procurement Expenditure Revenue Physical Development and Planning Student Accommodation Student Catering Farm manager			
Academic, Research and Student Affairs Division	<ul> <li>Senate Affairs</li> <li>Examinations</li> <li>Admissions</li> <li>Teaching Programs and Academic Audit</li> <li>Library</li> <li>Associate Dean of Students</li> </ul>			





### SEKU professor picked to head university college

outh Eastern Kenya University is fast establishing its reputation as a veritable source of top notch human capital, going by the growing list of senior staff being called up for high-calibre assignments both at national levels.

In March, the dean, School of Health Sciences, Prof. Kiptoo, was appointed director of the giant Kenya Medical Training College, while, around the same time, another don, Agnes Mulewa, became a Chief Officer in the Office of the Governor, Kitui County.

And in June last year, Prof. Thomas Akuja was appointed to head Turkana University College in Turkana County. Prof. Akuja, who until this appointment, was the director of linkages and international programmes, beat an array of other contestants to become the first substantive principal and chief executive officer of the nascent university college.

Prof Akuja holds a Doctor of Philosophy (PhD) degree in agronomy from the prestigious Ben Gurion University, Israel, and Master and Bachelor of Science degrees in agronomy from the University of Nairobi.

In 2009, South Eastern Kenya University Council appointed him to the position of associate professor in the Department of Dryland Agriculture, School of Agriculture and Veterinary Sciences.

Prof Akuja's career in university teaching and management spans close to 30 years having started as a teaching assistant at Egerton University, rising to the position of senior lecturer in 2009.

At one point he was the chairman of the department of agronomy. He also served as SEKU's Machakos town campus director and, until his departure, was a member of the important Appointments and Promotions Committee of the University.

In April this year, the United Kingdom's Commonwealth University recognised Prof. Akuja's exemplary contribution to humanity, conferring him with an honorary doctoral degree, Doctor of Science Honoris Causa.

In its citation the University extolled Prof. Akuja's contribution to human development through research, teaching and consultancy particularly in the field of agriculture, noting that "for a period spanning 33 years, he has been involved in the fields of household food security, emergency response, livelihood baseline studies and surveys, early warning systems, participatory community training, corporate governance, research and teaching, gaining practical insights into the rural and cultural setting of the poverty stricken and disadvantaged groups in society."



Prof. Thomas Akuja Principal, Turkana University College



### Plans afoot to improve access to SEKU

outh Eastern Kenya University is collaborating with the county governments of Machakos and Kitui to construct a bridge on Mwitasyano River which is at the border of the two counties to ease access to the University.

The bridge will open up access for motorists to access the University from Katangi trading centre on the Machakos-Kitui road and from Matuu on the Nairobi-Garissa road through Ikombe trading centre. This will further open up the university to the neighbouring communities.

In a meeting at the University with teams from the two counties, Machakos County Deputy Governor, Eng. Francis Maliti, pledged his county's full support towards the realization of the project.

"The County Government of Machakos has given top priority to access roads to ease transport for enhanced commercial transactions within the county and with our neighbours," said Eng. Maliti.

The Vice-Chancellor, Prof. Geoffrey Muluvi, appealed to the leadership of the two counties to speed up the implementation of the project to boost opportunities for the residents of the two counties to

access education and boost trading opportunities with the larger University community.

He said the construction of the bridge and, thus, opening up the University will give the people of the nearby Ikombe ward business opportunities through housing and sale of foodstuff.

At the same time plans are under way to connect the University to the Thika-Garissa Highway



Prof. Muluvi (left) leads a team from Kitui and Machakos goverments in inspecting the proposed road expansion.

AfDB Job for Youth on Africa Strategy.

The initiative seeks to contribute to the creation of 25 million hard and soft skills of increase young people's employability and entrepreneurial success rate.

Kenya will pilot this project in Africa together with Nigeria, Rwanda Senegal and Cot D'Ivoire.

As a hosting institution, SEKU will benefit from:

- A fully operational ICT centre of excellence equipped with innovative tools or technologies, equipment and facilities.
- Hosting a demand-driven, industry-led ICT training centre for the banks partners such as Facebook and Microsoft,
- · Hosting AfDB-supported innovation and ICT initiatives targeted at expanding and providing linkages to job opportunities for the youth.

During the inspection visit in June, Prof Muluvi assure the team that SEKU had adequate infrastructure to host the programme.

"We are well placed to ensure the programme benefits not only the youth in Kitui County, but extends to the neighbouring counties of Machakos, Makueni, Kajiado, Taita Taveta and Embu." said Prof Muluvi.

Speaking recently when he received over 100 ICT trainees sponsored by the county government of Kitui, Prof. Muluvi announced that SEKU will train 1,000 youth from Kitui County alone under the Af.DB programme.

## **SEKU selected to host bank's youth centre of excellence**

outh Eastern Kenya University has been selected to host the African Development Bank premier innovation and ICT centre of excellence in Kenya.

The selection follows a feasibility study by the Bank's team in June last year to establish the University's capacity to host the project, which offer the University the opportunity to train the youth in information technology, entrepreneurship and business skills.

In his letter of nomination, the bank's Director General for Regional Development and Business Delivery for East Africa, Mr. Gabriel Negatu told SEKU's Vice Chancellor, Prof. Geoffrey Muluvi, that the University had met the rigorous selection criteria

Students in a computer class. ICT Training will be a major component of the AfDB deal

for selection to "lead a revolutionary movement to nurture Africa's next generation of digitally enabled work force collaborate with the bank."

Mr. Negatu said the project is a flagship initiative under the broader

# Pioneering nursing students start class

EKU's latest kid on the block is here - Bachelor of Science in Nursing (BScN) in the School of Nursing and Public Health.

The School admitted it first cohort of students in September this year. This follows the greenlight by the Nursing Council of Kenya to the University to establish the School of Nursing after the latter fulfilled all the requirements outlined in the Council's guidelines.

When SekuNews visited them in the skills laboratory, the sixteen pioneer students appeared all settled and set for their studies as they engaged in a practical lesson.

The BSc. Nursing is designed to provide holistic training in nursing practice, administration, education, research and leadership. A fully equipped state-of-the-art nursing skills laboratory was established in readiness for the first intake.



According to the chair, Department of Nursing, Ms. Eunice Atsali, the entire team of staff and students have started in earnest.

"We are all delighted to be pioneers in this department, we are all new and this is good for us as it gives us the opportunity to establish and shape the programme in the best way we can.

"The nature and design of our BSc.N programme make it unique in that a graduate from SEKU will be prepared holistically in nursing practice, administration, research and leadership," said Ms. Atsali.

She says this will be achieved through rigorous theory, practice and mentorship throughout the course with a well-equipped faculty.

The programme's overall aim is to produce an effective, self-directed nurse, serving as a role model. The graduate will be able to utilise the available evidence-based practice to make key impact and change in the country's health system.

The programme's graduates will sit registration examination administered by the Nursing Council of Kenya to be qualified for practice license.

"With this, they can work any anywhere locally and globally," asserted Ms. Atsali.



Pioneer nursing students in practical sessions

## SEKU participates in 2018 RUFORUM parley

South Eastern Kenya University registered a strong presence in the just ended 6<sup>th</sup> conference of the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM).

The three-pronged parley which also included the 6<sup>th</sup> Higher Education Week and an exhibition by member universities and partnering organisations, took place from 22<sup>nd</sup> to 26<sup>th</sup> October 2018 at the Kenyatta International Convention Centre, with participants drawn from the 105 members in 37 countries.

With its theme of "Aligning African Universities to Accelerate the Attainment of Africa's Agenda 2063", the conference sought to, among other things, providing opportunity for showcasing innovations and entrepreneurship to demonstrate universities' repositioning in response to national and regional development needs, with specific reference to agriculture and allied sectors; create an opportunity to interact and synergise to accelerate university and farming communities' transformation for sustainable the enterprise development in Africa and engage development partners and governments to find innovative funding mechanisms that propel university transformation.

Young researchers were also high on the forum's agenda, the goal being to expose and connect them to their seniors in profession and research for mentorship with a view to further accelerating innovative research careers, strengthening innovation for community impact, and enhancing research communication, publication and networking.

Through the Young African Entrepreneurs Series, RUFORUM seeks to accord the youth and young researchers the much needed exposure to the practical entrepreneurship skills capacity enhancement and mentorship.

SEKU submitted 11 extended abstracts and one factsheet to the conference scientific committee for review. Out of these five extended abstracts and the one factsheet



Prof. Muluvi (left) with exhibiting staff when he visited SEKU stand at KICC

were cleared for presentation as posters and factsheet. They included:

- Mwami, B., S. Nguluu, J. Kimiti, T. Akuja, B. Muli, D. Karanja, C. Mugisha, B. Waswa: Effects of foliar fertilizer application rates on the productivity of selected bean varieties in semiarid South Eastern Kenya.
- Ndolo, M.; Kilungo, J.; Akuja, T.; Kimeu, E. Socio-economic factors influencing food security in Mwala sub-County, Machakos County, Kenya.
- Kimatu, J.: "The factors influencing the unsustainable livelihood interactions between rapid urbanization, environmental pressures and food systems in the sub-Saharan region.
- Wambua'J., J. Gweyi, N. Korir and S.M. Ngene. Heavy metal concentration of amaranthus, cowpea, black nightshade and kale in response to wastewater irrigation in Kitui County-Kenya.
- 5. Mutia, Grace. Factors influencing adoption of fisheries technologies by artisanal fishermen in Malindi, Kenya.
- Tailor, A.; J. Kilungo, A. Ndathi, I. Kimani, T. Kibet, and N. Beintema. Factsheet on capacities in agricultural higher education. South Eastern Kenya University, School of Agriculture and Veterinary Sciences.

SEKU's exhibition stand on the sidelines of the conference was a crowd puller. The exhibits included four technologies, namely: cassava processing machine;) hand pushed planter; Model of two-stroke cycle engine, and (iv) grain moisture metre



# ASALI project supports varsities curriculum review training

he ASALI Project conducted a curriculum review training for staff of SEKU and the Moi Universities in the month of November 2018.

The purpose of the training which took place in Naivasha was twofold: to expose participants to emerging issues in the existing and new curricula and, understanding of how the priority aspects are conveyed in classrooms and to other stakeholders.

In order to decide on what curriculum changes are required, the training took cognizance of the necessity to first know what is in place. Consequently, the participants examined the national curriculum policy and key curriculum documents, curriculum frameworks, nationally and internationally recognized references, teaching methods, and assessment and examination systems.

Other areas of interest were embracing the needs for a full curriculum review that include baseline study, collection of empirical data on the teaching themes in schools, as well as on related teaching practices, teacher education, student needs and perceptions, community perspectives, and the potential of various institutions and networks to bring about change.

The Commission for Higher Education presented a prescribed priority content checklist for review of curriculum frameworks and subject area syllabi, with

emphasis on the need to conduct participative curriculum reviews and baseline studies on teaching practices, relevant school conditions, and teacher/student views.

The knowledge gained will be useful in the early 2019 scheduled SEKU academic programmes audit. The training was informed by the need for a regular review of programmes involving the coordination of system-wide goals and the strategic plan with existing and proposed programs within the university.

Such a process plays a key role in upholding and disseminating the core values fundamental to a cademic success: accountability, collaboration, continuous learning, rigorous standards, proactive partnerships, respect, and responsiveness.

It enabled the building of excellent academic programmes that reinforce a university's position as a comprehensive model institution.

The ASALI sponsored review training initiative responds to an identified need in the university for support in systematically integrating education sensitive measures into each step of the curriculum planning execution process and, into curriculum revision and development processes. As envisaged, the training came up with a set of recommendations for changing and improving the current curricula in all aspects – textbooks, teacher training, and examinations, and management and administration of the education system down to school level.

By adopting a sensitive planning and content, the stakeholders are expected to become change agents and contribute to building academic excellence in a sustainable internationalized format. The learners were taken through the techniques of identifying the elements of learning that are already included in the official curricula and teaching practice, and those that need to be added or reinforced.

At the conclusion of the curriculum review training, it was appreciated that the review may take a number of forms depending on the purpose-ranging from an in-depth review of the syllabi and methods of teaching to a portfolio review.



SEKU-ASALI Project PI, Prof. Mary Mburu (Centre) and livestock farmers, Mr. Anthony Mulutua (left) and Mr. Peter Loontasati, examine newly introduced grass species in Kajiado. ASALI project is engaged in grass growing in ASAL areas for livestock improvement.



# VC rolls up his sleeves, charts path for product- oriented research

he South Eastern Kenya University Council and Management have been on the forefront in the push for cutting edge research to fulfill the twin agenda of generating income and putting the University on the global map as a bastion of academic excellence.

The Council has taken the push a notch higher, undertaking to financially support innovations that produce tangible products. This call had not gone unheeded, going by the number of grant proposals emanating from faculty. In the 2016/2017 academic year SEKU staff wrote proposals resulting in over KSh 60,420,000 worth of research grants from the National Research Fund alone.



Prof. Muluvi takes photos of Moringa pods along Mombasa Road. with him are Dr. Carole Hunja and Mr. Festus Mutiso

And now the Vice-chancellor, Prof. Geoffrey has decided to roll up his sleeves and lead the team in research and innovation. In the 2016/2017 academic year. Prof. Muluvi teamed up with others to seek funding for his research: "Development of Moringa for improved health, nutrition and household water purification." Others in the team are Dr. Johnson Kitheka, Dr. Carol Hunja, Dr. Josphert Kimatu, and a Master's student, Ms. Judy Wachira.

Besides enhancing livelihoods through the plant's multiple products, Prof. Muluvi and his team envision that the research will market the University through branding go various Moringa products. In August Prof. Muluvi led his fellow researchers on a fact finding cum seed collecting mission from different provenances of Moringa. The team visited Kibwezi, Taita, Kitui, Mtito Andei, Mombasa, Malindi and Likoni. Mr. Festus Mutiso, who accompanied the VC in the data collection exercise expressed his surprise at the deep knowledge of the various Moringa by the CEO who confesses research as "my first love and passion." specie, their sue and wherein.

The project seeks to improve the fruit and seed yield of Moringa oleifera in the arid and semi-arid areas, thus maximizing

farmers' benefits through increased food, fodder output and and water purification capacity.

Moringa oleifera belongs to a monogeneric family of shrubs and trees, the Moringaceae. Its common name is annual drumstick which is indigenous to North West India. However, the tree has been naturalized in Kenya and is now fast spreading in many parts of the country as drought resistant plants. It can in less than three months attains a height of 2.5m with fruits appearing in about 6 months!

The plant has multiple purposes with its seeds having flocculation and antimicrobial properties making it very useful for biological water purification. It can reduce 90-99% reduction of bacterial contamination. The seed also produces oil which is edible and can be used in cosmetic industries. Perhaps not known to many, the leaves of M. oleifera are edible as vegetables and have the potential to serve as a valuable source of beta-carotene. Other parts of the plant used as food are green pods, flowers and roasted seeds. Moreover, the leaves and shoots of Moringa are good fodder for livestock.

Dr. Kimatu, who is part of the team says the broad spectrum nature of Moriga makes its viable roduct for enhancing livelihoods especially in the rural communities. "The diverse potential uses of Moringa in improving nutrition, hunger-aid and water supplies in rural areas of tropical developing countries led us to select it for this research." The team aims at optimizing the production of the plant for maximum economic gain. Including a select high fruit and seed yielding trees within the local provenances; optimization of the planting and silvicultural practices for improved production; establishment of high yielding clonal and seedling seed orchards; introduction of improved germplasm from other countries, molecular analysis and fingerprinting of promising varieties, optimization of Moringa seeds for water purification, determine the efficacy of Moringa seeds as a coagulant in household water treatment; and a create awareness on moringa growing and utilization especially water treatment among small scale farmers including the development of income generating products.



Prof. Muluvi and Dr. Carole Hunja prepare to meet with a family at Mbololo in Taita Taveta County to request permission to collect Moringa seeds



# Hygienic bees are healthy bees

An exploration of the hygienic behavior of a Kenya specific bee species - Apis mellifera scutelatta

A study by Dr. Eliud Muli and others

Background: The hemaphagous honey bee mite Varroa destructor is considered one of the major ectoparasites of honey bees, and are of great economic importance to beekeepers. The mites such hemolymph (blood) of developmental stages and adult honey bees and vector several viruses which cause harm to bees. The mites are host-specific

meaning that growth and development entirely depends on honey bee brood to reproduce. Honey bees employ several behavioural mechanisms to reduce V. destructor infestation viz reduced mite reproductive success, grooming and hygienic behavior. Varroa – specific hygienic (VSH) behavior is the ability of honey bees to detect, uncap and remove mite-infested brood leading to high mite infertility. VSH is a heritable and highly variable trait and has been used to breed for Varroa resistant honey bee strains. Hygienic and grooming behaviors have been reported in East African honey bees, Apis mellifera scutelatta, but the VSH had not been previously investigated. The East African population of Apis mellifera scutelatta has been reported to survive Varroa mites infestation, requiring no chemical treatment as is the case in Europe and North America. The mechanisms for this resistance and/or tolerance is not yet well understood. In this study, we evaluated the VSH behavior of these bees in an effort to partly understand this survival phenomenon.

**Methodology:** Colonies were pre-tested for general hygienic behavior (GHB) using the Pin-killing method. Colonies with over 85% HB were selected as 'hygienic' and used for the VSH behavior studies. Varroa – specific hygienic (VSH) behavior was determined using the method of Aumier et al., 2000, which involves artificial infestation of brood with live mites.

**Results:** Worker bees responded highly to manipulated brood cells artificially infested with mites compared to controls (GLMM, p < 0.001). Four categories of behavior was noted, of which three represent typical hygienic behavior: untouched cells (UC), cell caps opened (CO), brood

removed (BR) and mite removed and cell recapped (MR). The behaviors showed dependency on the number of mites introduced – few mites (5) singly introduced into closely neighboring cells evoked less uncapping and less removing compared to 8 and 10 mites.

Bees responded towards artificially infested brood cells within a relatively short period. Maximal rates were already recorded within 72 hours. 25.8% of infested cells were uncapped, mite removed and recapped while 33.5% cells had the infested pupae removed.

**Discussion and Conclusions:** We noted a higher expression of VSH behavior in Apis mellifera scutelatta compared to what is reported in literature for Africanized bees and strains of honey bees of European origin. However, in addition to the genetic make-up, environmental factors such as nectar flow and strength of colonies also play a key role in expression of hygienic behavior. The expression of VSH behavior was strongly dependent on the density of mites at a certain patch/region of neighboring brood cells. This is probably because chemical signals that trigger HB are less concentrated and harder to detect in brood with low infestation or it might be that hygienic bees that uncap and remove mites have a specific internal threshold for performing the task, and under low infestation levels only a minority, those with a low threshold for the odorant cue perform the task. In conclusion, the high VSH behavior may be playing a critical role in the survival of Apis mellifera scutelatta colonies to Varroa mites infestation despite the lack of chemical (acaricides) intervention.

Dr. Muli (pictured) is the Dean School of Pure and Applied Sciences, SEKU



A beehive in a forest



# Your tea need not be expensive, says expert

id you know that the drop of milk you add to your valued morning beverage, tea may be totally unnecessary? Did you also know that the little spoon of sugar that you add to your tea reduces the value of your favorite drink?

SEKU's Deputy Vice-Chancellor for Administration and Human Resources Management Prof. Francis Wachira, (pictured right), says that tea is best taken naturally - without milk, sugar or sweetener.

"That way, the important health enhancing components of tea, such as polyphenols are not diluted or neutralized," said Prof. Wachira, a Biochemist and Molecular Biologist, who has done extensive research on tea and contributed to the development of five registered and commercialized tea varieties.

Speaking at the University, when he delivered a public lecture titled "New Perspectives in Functional Diets: The Case of Tea", Prof. Wachira classified tea among "functional foods", saying that this concept refers to "foods with medical or health benefits beyond basic nutrition" properties that are conferred by physiologically active compounds in them.

According to Prof. Wachira, different tea varieties are rich in compounds called polyphenols which include:



Anthocyanins/Anthocynidins and Catechins; Theanine, a non protein amino acid, Caffeine and its other derivatives. Anthocyanins are potent antioxidants with antiaging properties. This unique polyphenol found in purple tea is a good anti-obesity agent. Tea catechins in Kenyan tea have anti – inflammatory and anti-cancer properties. Besides, different



types of tea significantly enhance the capacity of the body to quench free radicals that are responsible for a myriad of lifestyle diseases including Cancer. The polyphenols enhance the levels of a molecule called glutathione (GSH) that mopes up the free radicals in kidney, liver and the brain. Kenyan tea extracts also have antifungal properties against Candida albicans and C. neoformans besides also having anti-bacterial properties against some antibiotic resistant bacteria. Caffeine, the best known component of tea, increases mental alertness and alacrity, concentration and energy in tea consumers.

Other benefits of Kenya tea are its anti-mutagenic properties, anti-diabetic properties, anti-hypertensive properties, and ability to enhance drug bioavailability when co-administered with drugs, potential to protect against heavy metal poisoning and the potential to fortify other foods for enhanced health benefits.

However, flavoring or sweetening of tea and adding milk to it will significantly reduce the efficacy of these important components. Prof. Wachira says that the anti-

oxidant capacity of tea decreases when it is fortified with milk and sugar.

He urged proper use of functional foods for enhanced health and general wellbeing saying that there is overwhelming evidence that such foods when prepared and taken in the right amounts have physiological or health enhancing properties. He concluded with a quote from a famous American scientist and inventor, Thomas Edison, who said that "the doctor of the future will no longer treat the human frame with drugs, but rather will cure and prevent disease with nutrition", He urged his audience to enhance their health by being faithful to health-supporting dietary regimes, noting that "When diet is wrong, medicine is of no use; when the diet is right medicine is of no need."



### SOUTH EASTERN KENYA UNIVERSITY ACADEMIC PROGRAMMES





	DD -	ODAMME	COURSE BURNETICS	CAMPUC	FEEO DED VEAD
/NO.	PRO	GRAMME SCHO	COURSE DURATION OOL OF NURSING SCIEN	CAMPUS ICES AND PUBLIC HEALTH	FEES PER YEAR
1.	a) b) c) d)	Master of Science in Infectious Disease Diagnosis Master of Science in Public Health Master of Science in Epidemiology, Master of Science in International Health	Minimum 4 Semesters	SEKU Main Campus	Tuition: 120,000.00 Statutory charges: 32,500.00
2.	a) b) c) d)	Bachelor of Science in Public Health Bachelor of Science in Population Health Bachelor of Science in Medical Microbiology Bachelor of Science in Medical Botany	Minimum 8 Semesters	SEKU Main Campus	Tuition: 84,000.00 Statutory charges: 27,000.00
3.	a)	Bachelor of Science in Nursing	Minimum 8 Semesters	SEKU Main Campus	Tuition: 202,455.00 Clinical Fee: 12,375.00 Statutory charges: 27,000.00
		SCI	OOL OF PURE AND AP	PLIED SCIENCES	Tuitian 450 000 00
4.	a)	Doctor of Philosophy in Physics	Minimum 3 Years	SEKU Main Campus	Tuition: 150,000.00 Statutory charges: 34,250.00
5.	a) b) c) d) e)	Master of Science in Biochemistry Master of Science in Biotechnology Master of Science in Physics Master of Science in Applied Statistics Master of Science in Biodiversity Conservation and Management	Minimum 4 semesters	SEKU Main Campus	Tuition: 120,000.00 Statutory charges: 32,500.00
6.	a) b) c) d) e) f) g) h)	Bachelor of Science in Actuarial Science Bachelor of Science in Statistics Bachelor of Science in Mathematics Bachelor of Science in Chemistry Bachelor of Science in Physics Bachelor of Science in Biology Bachelor of Science in Biology Bachelor of Science in Biochemistry and Molecular Biology	Minimum 8 Semesters	SEKU Main Campus	Tuition 84,000.00 Statutory charges 27,000.00
			HOOL OF BUSINESS AN	D ECONOMICS	
	a)	Master of Business Administration (MBA)		Kitui Town, Wote Town and Mtito Andei	Tuition: 120,000.00 Statutory charges: 32,500.00
	a)	Master of Arts in Economics		SEKU Main Campus	Tuition: 120,000.00 Statutory charges: 32,500.00
	a) b)	Management	Minimum 8 Semesters	SEKU Main, Kitui Town, Wote Town and Mtito Andei	Tuition: 72,000.00 Statutory charges: 27,000.00
	c) d) e)	Bachelor of Economics Bachelor of Economics and Statistics Bachelor of Project Planning and Management Bachelor of Business and Information Technology (BBIT)	Minimum 8 Semesters	SEKU Main Campus	Tuition: 72,000.00 Statutory charges: 27,000.00
		SCHOO	L OF AGRICULTURE AI	ND VETERINARY SCIENCES	
9	a) b) c)	Doctor of Philosophy in Dryland Resources Management Doctor of Philosophy in Agricultural Economics Doctor of Philosophy in Animal Science	Minimum 3 Years	SEKU Main, Wote Town, Kitui Town and Mtito Andei	Tuition: 150,000.00 Statutory charges: 34,250.00
10.	a) b) c) d) e) f)	Master of Science in Agricultural Resources Management Master of Science in Livestock Production Systems Master of Science in Agronomy Master of Science in Comparative Mammalian Physiology Master of Science in Reproductive Biology Master of Science in Agricultural Economics Master of Science in Rangeland Resources Management	Minimum 4 Semesters	SEKU Main	Tuition: 120,000.00 Statutory charges: 32,500.00
11.	a) b) c) d) e) f)	Bachelor of Science in Agriculture Bachelor of Science in Dryland Agriculture Bachelor of Science in Dryland Animal Science Bachelor of Science in Range Management Bachelor of Science in Food Nutrition & Dietetics Bachelor of Science in Horticulture Bachelor of Science in Agribusiness Management and entrepreneurship Bachelor of Science in Agricultural Education and Extension	Minimum 8 Semesters	SEKU Main Campus	Tuition: 84,000.00 Statutory charges: 27,000.00
12.	a)	Diploma in Animal Health	Minimum 4 Semesters	SEKU Main Campus	Tuition: 42,000.00 Statutory charges: 27,000.00
		SCHOOL OF INFORMATION AND COM	MUNICATION TECHNOL	_OGY	
13.	a)	Master of Science in Information Systems	Minimum 4 Semesters	SEKU Main Campus	Tuition: 120,000.00 Statutory charges 32,500.00
	a) b)	Bachelor of Science in Computer Science  Bachelor of Information Technology (BIT)	Minimum 8 Semesters	SEKU Main Campus	Tuition: 84,000.00 Statutory charges: 27,000.00

	SCHOOL OF E	DUCATION, HUMANITIE	ES AND SOCIAL SCIENCES		
15.	a) Doctor of Philosophy in Educational Administration and Planning		SEKU Main, Wote Town, Kitui Town and Mtito Andei	Tuition: 150,000 Statutory: 34,250.00	
16.	a) Master of Arts in Sociology     b) Master of Arts in Kiswahili     c) Master of Arts in Religious Studies     d) Master of Arts in Gender and Development Studies	Minimum 4 semesters	SEKU Main Campus	Tuition: 120,000.00 Statutory charges: 32,500.00	
	e) Master of Education degree with options in:-  i. Educational Administration ii. Educational Planning iii. Education in Emergencies iv. Curriculum Studies v. Economics of Education vi. Corporate Governance in Education vii. Kiswahili Methods.  f) Master of Education in Early Childhood Education	Minimum 4 Semesters	SEKU Main, Wote Town, Kitui Town and Mtito Andei	Tuition: 120,000.00 Statutory charges: 32,500.00	
47			SEKU Main, Wote Town, Kitui Town	Tuition: 120,000.00 Statutory charges: 32,500.00	
17.	Postgraduate Diploma in Education  a) Bachelor of Arts in Social Work b) Bachelor of Arts in Gender and Development Studies c) Bachelor of Arts in Criminology d) Bachelor of Hospitality and Tourism e) Bachelor of Arts (Specializing in ONE or TWO of the following disciplines:- Sociology, Anthropology, Political Science, Philosophy, Religious Studies, Geography, History, Kiswahili , English, Literature).	One Academic Year	and Mtito Andei	Tuition: 72,000.00 Statutory charges: 27,000.00	
18.		Minimum 8 Semesters	SEKU Main Campus	Tuition . 72 000 00	
19.	a) Bachelor of Education (Arts):- (English and Literature, Kiswahili, History, Christian Religious Education, Geography, Business Studies, Mathematics) b) Bachelor of Education (Early Childhood Education)	Minimum 8 Semesters	SEKU Main, Wote Town, Kitui Town and Mtito Andei	Tuition: 72,000.00 Statutory charges: 27,000.00	
20.	a) Bachelor of Education (Science)	Minimum 8 Semesters	SEKU Main Campus	Tuition: 84,000.00 Statutory charges: 27,000.00	
21.	a) Diploma in Social Work and Social Development     b) Diploma in Community and Civic Development	Minimum 4 Semesters		Tuition: 36,000.00 Statutory charges: 27,000.00	
22.	a) Certificate in Civic Development and leadership	Minimum 2 Semesters		Tuition: 36,000.00 Statutory charges: 27,000.00	
	SCHOOL OF ENVIRON	NMENT, WATER AND NA	ATURAL RESOURCES		
23.	a) Doctor of Philosophy in Environmental Management     b) Doctor of Philosophy in Climate Change and Agroforestry     c) Doctor of Philosophy in Integrated Water Resources Management	Minimum 3 Years	SEKU Main Campus	Tuition: 150,000.00 Statutory charges: 34,250.00	
24.	a) Master of Science in Environmental Management     b) Master of Science in Climate Change and Agro- forestry     c) Master of Science in Integrated Water Resources     Management     d) Master of Science in Aquaculture     e) Master of Science in Agro-Meteorology     f) Master of Science in Mineral Exploration and     Mining	Minimum 4 Semesters	SEKU Main Campus	Tuition: 120,000.00 Statutory charges: 32,500.00	
25.	a) Bachelor of Science in Environmental Conservation and Natural Resources Management b) Bachelor of Science in Environmental management c) Bachelor of Science in Land Resources Management d) Bachelor of Science in Forestry e) Bachelor of Science in Hydrology and Water Resources Management f) Bachelor of Science in Fisheries Management and Aquaculture Technology g) Bachelor of Science in Aquatic Science h) Bachelor of Science in Geology i) Bachelor of Science in Meteorology	Minimum 8 Semesters	SEKU Main Campus	Tuition: 84,000.00 Statutory charges: 27,000.00	
	SCHOOL OF ENGINEERING AND TECHNOLOGY				
26.	a) Diploma in Electrical and Electronics Engineering with options in:	Minimum 4 Semesters	SEKU Main Campus	Tuition: 42,000.00 Statutory charges: 27,000.00	





### SOUTH EASTERN KENYA UNIVERSITATION ACADEMIC PROGRAMMES

### SCHOOL OF BUSINESS AND ECONOMICS

Master of Business Administration

Master of Arts in Economics

Bachelor of Business Management and Information Technology

Bachelor of Project Planning and Management

Bachelor of Commerce

Bachelor of Procurement and Supply Chain Management

Bachelor of Economics and Statistics

**Bachelor of Economics** 

Diploma in Sales and Marketina

Diploma in Human Resources Management

Diploma in Purchasing and Supply Chain Management

Diploma in Business Management

Certificate in Supply Chain Management

### **SCHOOL OF PURE AND APPLIED SCIENCES**

Doctor of Philosophy in Physics

Master of Science in Physics

Master of Science in Biodiversity Conservation and Management

Master of Science in Biotechnology

Master of Science in Biochemistry

Bachelor of Science in Mathematics

Bachelor of Science in Actuarial Science

Bachelor of Science in Statistics

Bachelor of Science in Biology

Bachelor of Science in Biochemistry and Molecular Biology

Bachelor of Science in Chemistry Bachelor of Science in Physics

Bachelor of Science in Electronics

Diploma in Electronics

### **SCHOOL OF ENGINEERING AND TECHNOLOGY**

Diploma in Mechanical Engineering (Production Engineering)

Diploma in Mechanical Engineering (Automotive Engineering)

Diploma in Mechanical Engineering (Power Electronics Engineering)

Diploma in Mechanical Engineering (Telecommunications Engineering)

Diploma in Fashion Design and Textile Technology

Certificate in Fashion Design and Garment Making

### SCHOOL OF ENVIRONMENT, WATER AND NATURAL RESOURCES

Doctor of Philosophy in Climate Change and Agroforestry

Doctor of Philosophy in Environmental Management

Doctor of Philosophy in Watershed Management

Master of Science in Climate Change and Agroforestry

Master of Science in Environmental Management

Master of Science in Aquaculture

Master of Science in Integrated Water Resources Management

Master of Science in Mining and Mineral Exploration

Master of Science in Agrometeorology

Master of Science in Exploration Geo-Physics

Bachelor of Science in Forestry

Bachelor of Science in Environmental Conservation and Natural Resources

Management

Bachelor of Science in Land Resources Management

Bachelor of Science in Environmental Management

Bachelor of Science in Agro-ecosystems and Environmental Management

Bachelor of Science in Applied Aquatic Sciences

Bachelor of Science in Hydrology and Water Resources Management

Bachelor of Science in Fisheries Management and Aquatic Technology

Bachelor of Science in Geology

Bachelor of Science in Meteorology

Diploma in Forestry

Certificate in Environmental Impact Assessment

### SCHOOL OF EDUCATION, HUMANITIES AND SOCIAL SCIENCES

Doctor of Philosophy in Educational Administration and Planning

Master of Education in Kiswahili Methods

Master of Education

Master of Education in Early Childhood

Master of Arts in Sociology

Master of Arts in Religious Studies

Master of Arts in Gender and Development Studies

Master of Arts in Kiswahili

Master of Arts in Geography

Bachelor of Arts

Bachelor of Education (Arts)

Bachelor of Education (Science)

Bachelor of Education (Early Childhood)

Bachelor of Arts in Gender and Development Studies

Bachelor of Arts in Social Work

Diploma in Social Work

### SCHOOL OF AGRICULTURE AND VETERINARY SCIENCES

Doctor of Philosophy Agricultural Resources Management

Doctor of Philosophy in Animal Science

Doctor of Philosophy in Agricultural Economics

Master of Science in Dryland Resources Management

Master of Science in Livestock Production Systems

Master of Science in Agronomy

Master of Science in Agricultural Economics

Master of Science in Rangeland Management

Master of Science in Comparative Mammalian Physiology

Master of Science in Reproductive Biology

Bachelor of Science in Agriculture

Bachelor of Science in Dryland Agriculture

Bachelor of Science in Horticulture

Bachelor of Science in Range Management

Bachelor of Science in Dryland Animal Science

Bachelor of Science in Food Nutrition and Dietetics

Bachelor of Science in Agribusiness Management and Entrepreneurship

Bachelor of Science in Agricultural Education and Extension

Diploma in Crop Protection

Diploma in Apiculture

Diploma in Rangeland Management

Diploma in Animal Health

Certificate in Animal Health and Husbandry

Certificate in Artificial Insemination and Fertility Management

### SCHOOL OF NURSING SCIENCES AND PUBLIC HEALTH

Master of Science in Epidemiology

Master of Science in Public Health

Master of Science in International Health

Master of Science in Infectious disease diagnosis

Bachelor of Science in Public Health

Bachelor of Science in Population Health

Bachelor of Science in Medical Microbiology

Bachelor of Science in Nursing

### SCHOOL OF INFORMATION, COMMUNICATION AND TECHNOLOGY

Master of Science in Information Systems Bachelor of Science in Computer Science

Bachelor of information Technology

Diploma in Computer Science

Diploma in information Technology

Certificate in Information Technology Certificate in Computer Applications