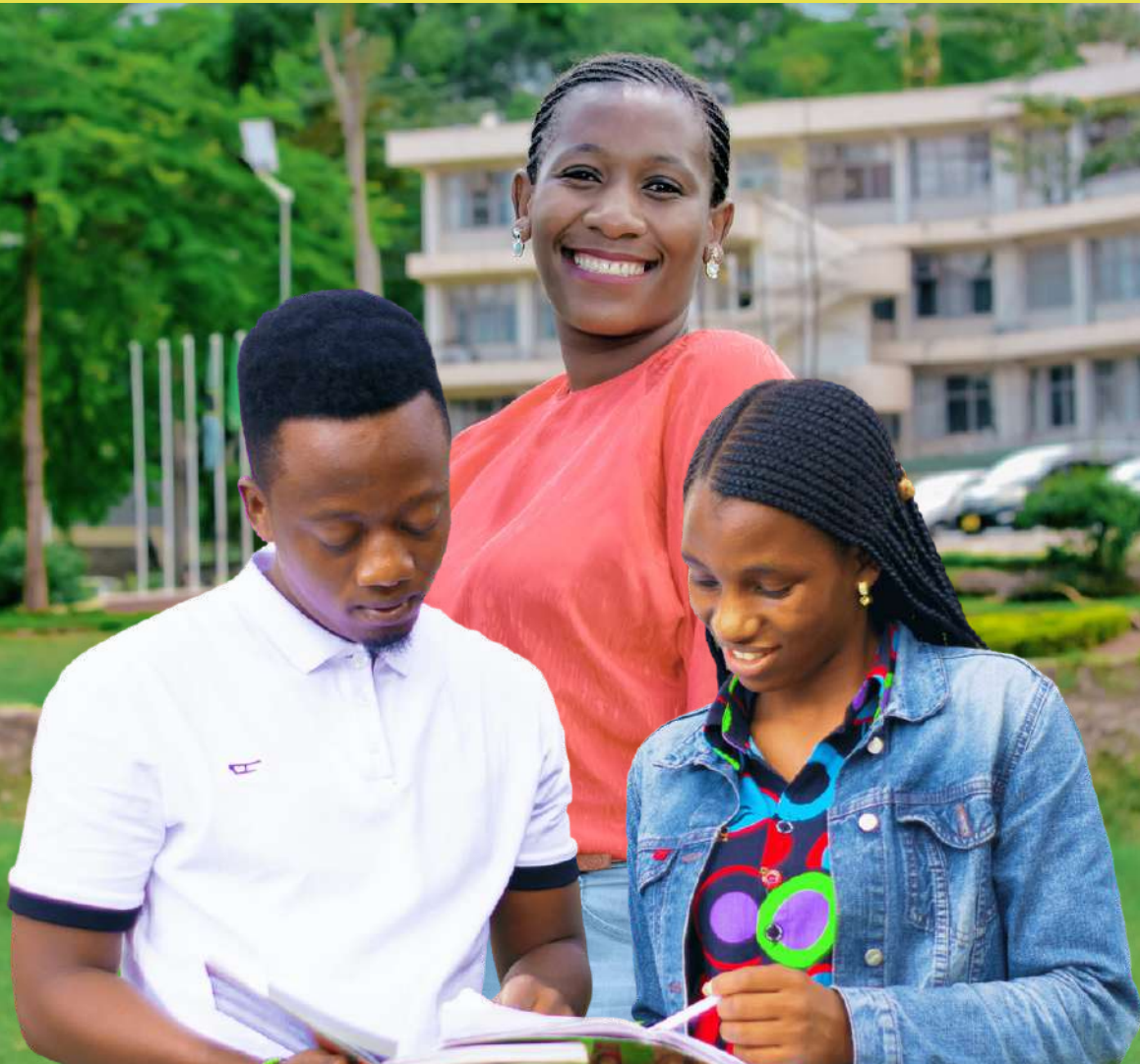




Sokoine University of Agriculture

PROSPECTUS

2021/2022/2023



www.sua.ac.tz

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ABOUT THIS PROSPECTUS

This publication provides comprehensive information on academic programmes and student life at Sokoine University of Agriculture (SUA). It is intended to serve as a guide to prospective and ongoing undergraduate and postgraduate students in planning their studies. It provides an exhaustive list of all the undergraduate and postgraduate programmes and career opportunities for each programme. It is therefore advisable to consult Principals, Deans, Directors and Heads of Department hosting the respective programmes for any clarification whenever necessary.

Other useful and any new information about the university, staff profiles, research projects, contact information, various university policies and documents can be found on SUA's website accessed at: www.sua.ac.tz

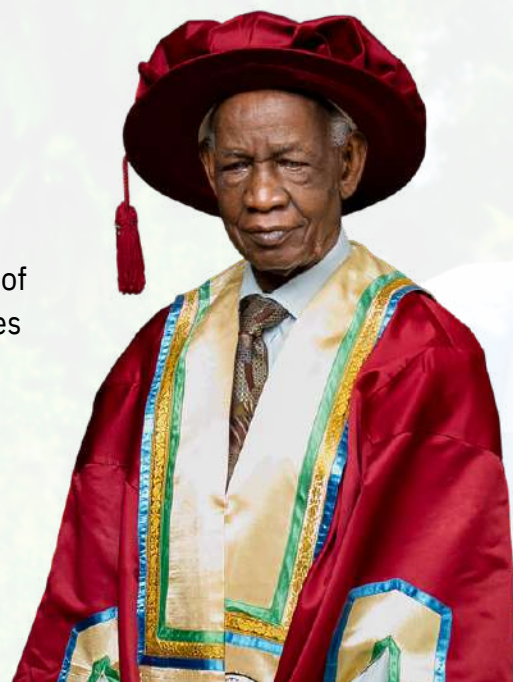
The online version of this prospectus can be downloaded at www.sua.ac.tz/prospectus. To apply for admission, visit www.sua.ac.tz/apply

— “ —

In the five years that I have worked with the Sokoine University of Agriculture, I have witnessed countless (agricultural) enterprises and projects solely established by its graduates

— ” —

*Hon. Judge (Rtd) Joseph Sinde Warioba
Chancellor, Sokoine University of Agriculture
October 2021*



— “ —

Sokoine University of Agriculture does very well in fulfilling her three core activities which are teaching, research, and offering extension services for development of our society, economy, and our country. We can say that it is the university that is rich in academia and research

— ” —

*Hon. Chief Justice (Rtd) Mohamed Chande Othman
Chairman of the Council, Sokoine University of Agriculture
August 8, 2019*



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PROSPECTUS

MESSAGE FROM THE VICE CHANCELLOR

Dear friends,

I would like to welcome you to Sokoine University of Agriculture (SUA), as freshers joining us for the first time, or as continuing students returning from vacation. By coming to SUA, you have chosen to become a community member of one of the best Universities in the fields of agriculture and allied sciences in Africa.

Since its establishment in 1984, the University has established a rich tradition of excellence in all academic disciplines which aims at providing students with high quality education and preparing them to become exceptionally well qualified innovators, researchers, leaders, and entrepreneurs in their desired fields.

Besides, SUA being unique, the largest and the oldest university offering training in agriculture and related fields in the country, it was given a special place in Tanzanian society by its first Chancellor and the first President of the United Republic of Tanzania, the late Mwalimu Julius K. Nyerere. In his inauguration speech on 26th September, 1984, Nyerere asserted,

“The Sokoine University of Agriculture is intended to be directly useful to our farmers and our nation, now, as well as in the future. It must be professional oriented; and the professions concerned are those which encompass the knowledge, the understanding and the skills, to do a practical job in our rural areas to answer the needs, and solving the problems of Tanzanian agriculture and rural life”.

The late Mwalimu Nyerere in this respect regarded agriculture as the driver of national economic growth and development which has to be nurtured through the offering of appropriate intermediate and higher education in agriculture. We are building on this philosophy by ensuring that SUA students receive the best possible quality of teaching and practical training from highly qualified and experienced academic and technical staff.

SUA’s strategic objectives related to academics include to increase students’ enrolment; to improve the quality of graduates, to increase the volume and quality of research; to enhance outreach, publicity, linkages and partnerships and; to improve teaching, research and learning environment.

We, aspire to provide quality training, research, consultancy, outreach and related services in order to make SUA an outstanding place in advancing knowledge and skills in order to solve community problems and contribute to national socio-economic development. Our vision is to be a “leading University in the provision of quality knowledge, skills and innovations in agriculture and allied sciences” with the mission “to undertake training, research in agriculture and allied sciences and to deliver highly competitive outputs that contribute to the national, regional and global socio-economic development”



Our teaching is designed to give practical experience and exposure to the latest ideas and developments in various areas of study. We aim to develop and nurture your interests and offer essential knowledge and skills

We encourage unrestricted discussions with students, the research community and stakeholders in all processes that shape students’ intellectual pursuits, physical, mental and social well-being.

Your stay at SUA, will provide you with the opportunity of interacting with the well-trained minds in your fields of academia. The University strives to remain focused on student-centered approaches, staff training needs, and community service.

SUA management is always very positive to support everyone involved in studies and research so that life at the university can be academically and professionally rewarding.

I wish you an enjoyable and successful stay at SUA.

Prof. Raphael T. Chibunda
Vice Chancellor

ABOUT THE SOKOINE UNIVERSITY OF AGRICULTURE

Profile

The Sokoine University of Agriculture (SUA) is a Tanzanian public University that was established by Act No. 6 of 1984. Currently the University operates under the Universities Act No. 7 of 2005 and SUA Charter and Rules of 2007. SUA is named after the late Prime Minister of Tanzania, Edward Moringe Sokoine, who passed away on 12th April 1984 in a road accident in Morogoro. The Edward Moringe (Main Campus) is located on the slopes of the the Uluguru Mountains, in Morogoro, Tanzania.

The University has five campuses namely, Edward Moringe Campus (2,376 ha) and Solomon Mahlangu Campus (1,050 ha) both in Morogoro, Olmotonyi Campus (840 ha) in Arusha, Mazumbai Campus (320 ha) in Tanga Region, Mizengo Pinda Campus in Katavi Region (64 ha) and Tunduru Campus (509 ha) in Ruvuma Region. In addition, SUA has sites for students' field practice in Mbinga, Ruvuma Region; Mgeta (Nyandira), Morning side and Kitulanhalo Forest in Morogoro Region.

The University has five campus colleges and two schools, namely the College of Agriculture; College of Forestry, Wildlife and Tourism; the College of Veterinary Medicine and Biomedical Sciences; the College of Natural and Applied Sciences; the College of Economics and Business Studies; School of Engineering and Technology; and School of Education. These colleges offer various degree and non-degree programmes which lead to the awards of PhD, Masters, Bachelor degree, Diploma, and Certificate qualifications.

Find out more at <https://www.sua.ac.tz/about>

Vision, Mission and Core Values

Our Vision

To be a leading University in the provision of quality knowledge, skills and innovations in agriculture and allied sciences.

Our Mission

To undertake training, research in agriculture and allied sciences and deliver highly competitive outputs that contribute to national, regional and global socio-economic development.

Our Values

Effectiveness, efficiency, pursuit of excellence, creativity and innovativeness, equality and social justice, integrity, transparency and accountability.

ABOUT MOROGORO

Morogoro is located in the eastern part of Tanzania, 196 kilometres west of Dar es Salaam, the country's largest city and commercial Centre, and 260 kilometres east of Dodoma, the country's capital city.

Sokoine University of Agriculture's Edward Moringe campus (main campus) is located on the slopes of Uluguru Mountains in the Morogoro Region at an altitude of about 500 - 600 metres above sea level and receives an average annual rainfall of between 600 and 1000 mm.

Solomon Mahlangu Campus (SMC) of Sokoine University of Agriculture, which has a rich history of hosting freedom fighters from South Africa under the African National Congress (ANC), is located in Mazimbu area about 10 kms from the main campus.

Morogoro is a centre of agriculture and the national food basket of Tanzania. Morogoro boasts several attractive places where one can visit and explore the beauty of life, there are several good places where one can dine and have an unforgettable taste of traditional cuisine and places where one can visit and write a new history of life.

Some of the best places for outdoor activities found in Morogoro include Selous Game Reserve, Uluguru Mountains, Kinole Waterfalls, Mikumi National Park, and the Morning Side. Mikumi National Park, which is about 118 km from Morogoro centre is the home to the most spectacular wildlife species including Lion, Buffalo, Giraffe, Wilde beast, Zebra, Impala, Warthog, Elephant, Hippo and more than 300 bird species and diverse plant species.

Tourist attractions found in Morogoro is what makes the region very unique compared to other regions in Tanzania.

There is a wide range of activities to choose from mountain hiking, safaris, bird watching and trekking.

While you are in Morogoro for your enjoyment, you can access several health centres available in the municipality. This will ensure that you have an uninterrupted exploratory tour of the region, which is rich in culture and entertainment.



MANAGEMENT AND LEADERSHIP



Chancellor

Hon. Judge (Rtd) Joseph Sindi Warioba

LLB (University of East Africa), Dar es Salaam; LLM (Hague Academy of International Law)

www.chancellor.sua.ac.tz/warioba



Council Chairman

Hon. Chief Justice (Rtd) Mohamed Chande Othman

LLB –Honors (UDSM); M.A (Inter. Relat.) (Webster University) (Geneva)

www.governance.sua.ac.tz/chande



Council Vice Chairperson

Ms. Dorothy Mwanyika

B.A (HONS) in Economics (UDSM), MSc. Agricultural Economics (SUA)

www.governance.sua.ac.tz/dorothy



Vice Chancellor

Prof. Raphael T. Chibunda

BVM (SUA); (MSc. Reproductive Biol.) (UoN); PhD (Ghent University)

www.vc.sua.ac.tz/chibunda



Deputy Vice Chancellor (Academic, Research and Consultancy)

Prof. Maulid W. Mwatawala

BSc. Agric; MSc. Agric; PhD (SUA)

www.arc.sua.ac.tz/mwatawala



Deputy Vice Chancellor (Planning, Finance and Administration)

Prof. Amandus P. Muhairwa

BVM (SUA); PhD (RVAU)

www.pfa.sua.ac.tz/muhairwa

STUDYING AT SOKOINE UNIVERSITY OF AGRICULTURE

Message from the Deputy Vice Chancellor (Academic, Research and Consultancy)

I am delighted to present this version of Prospectus that will guide your application into exciting programs offered by the Sokoine University of Agriculture (SUA).

It is an honour and a great pleasure to extend my sincere thanks to all the freshers and returning students for choosing to join this vibrant academic community. The office of Deputy Vice Chancellor – Academic, Research and Consultancy (DVC – ARC) is always ready to facilitate your academic life at one of the best universities in Tanzania.

The University offers undergraduate, postgraduate, non-degree programs in a wide range of fields including agriculture, forestry and nature conservation, veterinary medicine, animal science, environmental science, economics, agribusiness, management, engineering, entrepreneurship, computational science, education (science subjects), as well as social and allied sciences.

SUA is grounded on practical, scientific, innovative and technical foundations to impart knowledge and skills relevant to agriculture and allied sectors that drive economic development of any nation. We continue to strengthen our teaching and learning infrastructure including model farms and forests, the referral veterinary hospital, workshops, libraries, laboratories and workshops.

We aspire to nurture talents in response to the hastily changing global scientific, technological and economic landscapes that require specialized skills. We prepare our students to enter the Fourth Industrial Revolution with confidence by embracing digital technologies, the internet of things, robotics, artificial intelligence and biotechnology.

SUA has also introduced structured training programs on soft skills and preparatory training for entrepreneurship development activities. It has also established "Agribusiness Incubation Centres" to nurture youth's creative ideas and the enterprise for knowledge transfer and wealth creation.

At SUA training, research, consultancy and outreach are regarded as key pillars of success. Most of our staff are involved in research projects of various nature, scope and output. According to the 2021 Webometrics universities ranking results, SUA ranked number 1 in Tanzania, 31 in Africa and 1,215 worldwide among the top 5000 universities by citations, with a total of 98, 143 citations from our publications. This is simply impressive.

The outcomes of these research activities are passed through outreach and extension activities on to the community for enriching their lives and to students for enhancing their knowledge base.



SUA has 454 academic staff in the ranks of Professor, Associate Professor, Senior Lecturer, Lecturer, Assistant Lecturer and Tutorial Assistant and 106 technical staff working as Laboratory Technologists, Laboratory Assistants, Technicians, Agricultural Officers, Foresters, Livestock Officers, Workshop Instructors and Veterinary Clinicians. Others include Agricultural Field Officers, Agricultural Field Technicians, Assistant Agricultural Officers, Laboratory Technicians, Computer Technologists, Livestock Field Officers, Livestock Field Technicians, Assistant Livestock Officers and Academic Laboratory Assistants.

In this respect, this prospectus will provide our students and potential partners insights into various programmes and opportunities available at SUA.

For general information about Sokoine University of Agriculture, I encourage you to visit our website at <https://www.sua.ac.tz>

For detailed information about programmes offered at SUA, please visit <https://www.sua.ac.tz/study/programmes> or www.dus.sua.ac.tz

For information about fee structure for undergraduate and postgraduate programmes visit <https://www.sua.ac.tz/study/fees>

For detailed information about the Office of the Deputy Vice-Chancellor (Academic, Research and Consultancy) kindly, visit our website at <https://www.arc.sua.ac.tz>

For information about all SUA Staff Profiles, visit the following link <https://www.sua.ac.tz/staff-profiles>

For information about SUA staff profiles on Google Scholar Citation Index, kindly visit <https://www.sua.ac.tz/google-scholar>

For information about SUA staff profiles on Research Gate, visit <https://www.sua.ac.tz/research-gate>

You are warmly welcome to Sokoine University of Agriculture.

Prof. Maulid W. Mwatawala
Deputy Vice Chancellor (Academic, Research and Consultancy)

YOUR SAFE AND COMFORTABLE STAY AT SUA

Message from the Deputy Vice Chancellor (Planning, Finance and Administration)

A warm and affectionate welcome to all of you who aspire and wish to join the Sokoine University of Agriculture (SUA) for studies. The Office of the Deputy Vice-Chancellor - Planning, Finance and Administration (DVC - PFA) is one of the key offices mandated to oversee the planning, finance and administrative activities thus responsible for making your stay at SUA a memorable experience.

We continue to improve our environment to make your life at SUA enjoyable by improving our hostels in order to make your stay safe and comfortable. There are several privately run cafeterias, eating points, shops and kiosks within and around the campuses.

SUA cares so much for your mental and physical health. All campuses have sports instructors and facilities for football, basketball, netball, lawn tennis and volleyball. SUA has a modern hospital, with state-of-the-art facilities with competent staff to care for your health. Our counselling unit, under the Office of Dean of Students takes care of all your social and psychological problems if they happen together with career counselling.

SUA has digitised most of her systems and services, which could be accessed online, including booking for hostels and payment of various fees. There is Loan Officer's Desk in each campus to serve for the beneficiaries of the Higher Education Students' Loans Board (HELSEB) of Tanzania.

SUA has competent staff to take of all your administrative matters, please feel free to visit relevant offices once on our campuses.

The Solomon Mahlangu Campus in Morogoro, is one of the historically rich sites, hosting South African freedom fighters' graveyards. You can take a casual walk along the trails of our Botanical Garden at the Edward Moringe Campus, a good site for bird watching as well as the Morningside on the slopes of Mount Uluguru. Save time and visit the Mazumbai Reserve Forest, a sanctuary for rare and endemic species in the Usambara Mountains in Tanga.

I encourage you to join us and explore the beauty of SUA by visiting our campuses in Morogoro, Arusha, Tanga and Katavi Regions. Once again, I would like to welcome you all and wish you an enjoyable and pleasant stay once you join SUA.

For more information, kindly visit our website at <https://www.pfa.sua.ac.tz>



Prof. Amandus P. Muhairwa
Deputy Vice Chancellor (Planning, Finance and Administration)

TEACHING AND LEARNING ENVIRONMENT

Sokoine University of Agriculture has a conducive environment for teaching and learning. In all teaching venues, there are modern facilities such as LCD projectors, projection screens, whiteboards, public address systems, smart boards and many more that support one's academic pursuits

Library Services

Established in 1991, The Sokoine National Agricultural Library (SNAL) is located at the Edward Moringe Campus as well as Solomon Mahlangu Campus. It is the single largest agricultural library designated to serve the University and agricultural community in Tanzania. The activities of SNAL are geared towards supporting teaching and research activities of the University through the provision of books, periodicals and other reading materials to the University staff and students.

SNAL resources are open not only to members of the University community but also to other people engaged in research on various Government and non-Governmental projects in the country and scholars from all over the world. Find out more: <https://www.lib.sua.ac.tz>



ICT Services

The Directorate of Information and Communication Technology (DICT) provides extensive and reliable IT services, maintains computer laboratories, and offers technical support to students and staff at Sokoine University of Agriculture.

DICT ensures that University has a wide computerization system in order to support the main role of the University in research, teaching, consultancy, library, and administrative activities. Find out more <https://www.dict.sua.ac.tz>



Laboratories

SUA has various laboratories for teaching, research and consultancy activities. Our laboratories are found in different buildings in all the campuses. The University has recently constructed a new Multipurpose Laboratories Building at Edward Moringe Campus and Science Laboratory at Solomon Mahlangu Campus in Mazimbu. Our laboratories are equipped with modern and advanced equipment and well-qualified laboratory personnel. Find out more <https://www.sua.ac.tz/laboratories>

Multipurpose Laboratories at Edward Moringe Campus



Science Laboratories at Solomon Mahlangu Campus in Mazimbu



SUA Model Training Farm

SUA Model Training Farm was established to increase the quality of practical teaching, research, and outreach. The farm offers practical training to undergraduate and postgraduate students. Find more information at: <https://www.coa.sua.ac.tz/farm>



Agricultural Machinery Operators Driving School (SUA Driving School)

The School offers short courses that aim at producing drivers and agricultural machinery operators with basic knowledge and practical skills in operating and maintaining agricultural machinery for effective agricultural mechanization. Find out more at <https://www.driving.sua.ac.tz>



Graduate Incubation Centres

SUA and Private Agricultural Sector Support (PASS) Foundations has established incubation centers to help young graduates establish and develop various businesses in the Agricultural sector. Incubations enable young entrepreneurs at SUA to acquire capital as well as various resources with the aim of preparing them to become entrepreneurs and owners of large scale agricultural projects. Find out more <https://www.vc.sua.ac.tz/initiatives>





Olmotonyi Training Forest - Arusha

The University Training Forest lies on the foothills of Mt Meru in Arusha Region and is located at longitude 30 17' S and latitude 360 42' E. The forest is accessible from the administrative centre by a seven-kilometre all-weather road that passes through village land from the station, which is fifteen kilometres north of Arusha City.

The forest shares borders with two villages to the south, Arusha National Park to the north and Meru Forest Plantation to the east and west. It is worth noting that Arusha is the hub of the northern tourist circuit, from which one can easily access the famous National Parks of Arusha, Manyara, Tarangire, Serengeti and the Ngorongoro conservation area. Find more information at: <https://www.cfwf.sua.ac.tz/olmotonyi>

Mazumbai Training Forest - Lushoto

Mazumbai Forest Reserve is a 320 ha of montane evergreen rainforest stretching from 1300 to 1900 meters above the sea level located in Lushoto District in the West Usambara Mountains between latitude 4' 50' S and longitude 38' 30'E. The forest reserve is one of the best examples of the pristine rainforest of this type remaining in East Africa. The forest serves as a sanctuary for rare and endemic plant and animal species in Usambara mountains and provides water catchment proprieties essential for sustaining the livelihood of the surrounding communities. Find more information at: <https://www.cfwf.sua.ac.tz/mazumbai>



Mizengo Pinda Campus Bee Farm



Mizengo Pinda Campus Bee Farm is situated at Vilolo-Mpimbwe District, Katavi Region, which is 8 km from the campus. The bee farm is located in a potential area for beekeeping practices. This is due to different factors such as the weather condition of the area, availability of potential, diverse bee fodders plants and bee species. The bee farm has 5 different types of apiaries that are tree apiary, stand apiary and bee house apiary. Every student has his/her bee hive for monitoring and practice. The bee farm is used for practical sessions, research and production of bee products such as honey, beeswax, pollen, royal jelly, bee venom and pollination services.



The Mizengo Pinda Campus bee farm is one of the best places for learning and gaining skills and knowledge in the field of bee resources. Students are nurtured and shaped from the ground to being Bee Resources Managers and experts who are equipped with the necessary technical, analytical, managerial and entrepreneurship skills in Bee Resources Management for sustainable development of the nation and the world. Find more information at: <https://www.mizengopinda.sua.ac.tz/apiary>

Agricultural Machines and implements

In ensuring that students learn through practice, SUA has a variety of modern equipment including 17 Tractors, 1D6 caterpillar, 10 disk plough, 1 mouldboard plough, 4 disk harrows, 2 Trailers, 1 boom sprayer, 1 disc ridger, 2 rippers, 1 subsoiler and 1 tiny cultivator. Others include , 2 rotter slashers , 2 row crop planters, 1 seed drill, 1 zero till planter, 1 land leveler, 1 baller machine and 1 heavy duty maize Sheller. Find out more at: <https://www.soet.sua.ac.tz/facilities>



CAMPUS LIFE

Your first year at SUA will present a lot of new experiences such as living away from home, meeting new people and managing your own time. Prepare for life on campus by exploring what we offer to help you handle all challenging circumstances and give you ambient environment for living and learning environment

Housing and Accommodation

The University Housing and Accommodation Bureau (SUAHAB) offers accommodation services to students in hostels available on all campuses. Students are either accommodated in the Hostels or find their own accommodation outside the campus. Students who are accommodated in hostels are obliged to pay accommodation fees at an authorized rate. For more information, visit <https://www.pfa.sua.ac.tz/suahab>



Financial and Postal Services

The Directorate of Finance deals with all matters related to finances and advises the Management on financial matters including disbursement of student funds from the Higher Education Students Loan Board (HELSEB) and other students' sponsors. The Directorate also deals with all forms of payments and transactions of the University. Within the campuses, there is a Postal Office, commercial banks (CRDB, NMB, NBC), and mobile network companies; all of these provide services to staff and students.

Find out more at <https://www.pfa.sua.ac.tz/finance>

Catering Services

On the University campuses, there are restaurants and or cafeterias where students can be served a variety of delicious traditional and international foods and drinks. In addition, around the cafeteria premises, you will find an attractive and calm environment for you to relax. Find more at <https://www.pfa.sua.ac.tz/catering>

Transport Services

SUA has buses for shuttling students between campuses. These buses are also used for excursions and field tours.

Students can easily commute from campus to town centers using readily available public transport known as *daladala*, *Bajaji*, *bodaboda*, and *taxi*. Find more at <https://www.pfa.sua.ac.tz/transport>

Shopping and Stationery

Shopping services are available at various locations on and around campuses. These consist of several shops including mini supermarkets and general stores. Stationery shops around the Campuses provide a range of services to students and staff such as photocopying, printing, scanning, binding, stationaries and other gears for learning and research.

Find more at <https://www.pfa.sua.ac.tz/shopping>

SECURITY, HEALTH AND WELLBEING



Sports, Games and Recreation

All sports and games facilities are coordinated by the Department of Sports and Games. The sports grounds are used for various sports and games including football, netball, volleyball, basketball, tennis, cricket and athletics. The University also has an open gym.

These sports facilities provide a conducive social environment to students and staff. All students and staff are encouraged to participate in various sports and recreational activities to boost their talents and physical fitness. The university also supports students' participation in inter-institutional games if and when resources are available. Through the Corporate Strategic Plan, SUA intends to improve the standards of the facilities and associated services to match with increasing demands and importance. South of the Main Campus, there is a track up the Uluguru Mountains leading to an excellent view and scenery of the Morogoro Municipality and the surrounding villages. Joggers find the track quite interesting for sports events.

Learn more at <https://www.pfa.sua.ac.tz/sports>

Security and Safety

SUA has an Auxiliary Police Department located in Edward Moringe campus and its sub-office at Solomon Mahlangu Campus. This Department in collaboration with the Tanzania Police Force which also has an office at Edward Moringe campus is responsible for the maintenance of peace, order and the safety of people and property.

Learn more at: <https://www.pfa.sua.ac.tz/security>

Health Services

The University attaches great importance to the health of students, staff, staff families and the neighbouring community. In achieving this, the University has the Directorate of Hospital and Health Services, which coordinates the two University hospitals one located at Edward Moringe Campus and another at Solomon Mahlangu Campus. We also have a Healthy Centre at Mizengo Pinda Campus and a Health Post at Olmotonyi Campus, which offers first aid.

The hospital operates 24/7 hours providing out-patients, in-patient, emergency and intensive care services manned by Specialists, General Practitioners and Graduate Nurses. There are specialized clinics in internal medicine and cardiology, clinical imaging and radiology, obstetrics and gynaecology (including maternity facilities) as well as paediatrics and child health.

The Hospital offers other special services on the skin and sexually transmitted infections, dental and oral health, minor and major surgeries and normal and specialized laboratory investigations. It also operates clinics for pLWHA (people living with HIV and AIDS) and Tuberculosis; reproductive and child health, family planning and COVID-19 vaccination Centre. The Hospital has a referring system and linkage to higher referral hospitals within the country. All Students must have valid medical insurance that will allow access to medical services at SUA. The hospital is accredited by various insurance schemes available in Tanzania that include the National Health Insurance Fund (NHIF), Strategies, Medex, Jubilee Health Insurance and Resolutions. Before registration, all students must undergo a medical examination offered at SUA hospital. Get more information at <https://www.suahospital.sua.ac.tz>

Religious Affairs

SUA is a non-religious institution, nevertheless, it has provided land and facilities to allow students and staff to participate in various religious activities. Facilities and services are available to various Christian and Muslim staff, students and members of the surrounding communities on all the Campuses. There is a Chaplain for the Catholics, Protestants, Seventh Day Adventists, Assemblies of God and Pentecostals. The Muslims have an Imam/Executive Officer appointed by the Sokoine University of Agriculture Muslim Community Trust (SUAMCT). Additionally, the Muslim Students Association of Sokoine University of Agriculture (MSASUA), which is affiliated to SUAMCT caters for the interests of Muslim Students.

Counselling, Mentorship and Academic advisory

Sokoine University of Agriculture provides counselling and mentorship services enabling students to get guidance from the Office of the Dean of Students in all aspects including social, economic, political and academic issues. Moreover, the University has included the aspect of guidance and counselling where each student has his/her Academic Supervisor, who supports and advises students in matters patterning to academics, career path and social life. More at <https://www.dos.sua.ac.tz/counselling>

GETTING INVOLVED

Office of the Dean of Students

The Office of the Dean of Students facilitates the integration of the academic experience of students with all aspects of university and student life.

The Office facilitates interactions among students, faculty and staff to support students' academic success, personal and professional development.

Find more at: <https://www.dos.sua.ac.tz>



Mr. Pule J. Motshabi
Dean of Students

Sokoine University of Agriculture Students Organization (SUASO)

Sokoine University of Agriculture Students Organization (SUASO) is a platform for students academic, political, social, outreach and recreational activities.



SUASO acts as the Students' Governance and leadership unit. It is the responsibility of this unit to guide, counsel, and coordinate the activities to ensure students' integrity and respect for gender balance.

Furthermore, SUASO plays a role in bridging the gap between students and SUA management through the office of the Dean of Students. It also supervises the implementation of Students By-Laws, its Constitution, and all other formal documents approved by SUASO and SUA management.

There are also students' professional associations namely, the Tanzania Association of Agricultural Students (TAAS), the Tanzania Veterinary Students Association (TVSA), the Forestry Students Association (FSA), the Environmental Watch Association of Tanzania (EWAT), Rural Development Volunteers Association Tanzania (RDVA) and Tanzania Agriculture Economics, Agribusiness Students Association (TAGRESA) and Sokoine University of Agriculture Science Student-Teachers Organization (SUASSTO).

In addition, there are other bodies such as the International Students' Association of Sokoine University of Agriculture (ISASUA) and various religious associations and groups for students welfare. Get involved and enjoy richer student life at SUA. More at: <https://www.suaso.sua.ac.tz>

SUA Convocation/Alumni Association

After you graduate, you will become the Sokoine University of Agriculture Alumni. We have a large alumni network that spreads across the globe with many holding positions at the national, regional and international levels. They can be found in every important executive position throughout the public and private sectors in Tanzania and various countries around the world contributing significantly to national development.

Find more at <https://www.alumnisua.sua.ac.tz>

INTERNATIONAL STUDENTS

Sokoine University of Agriculture (SUA) welcomes international students to apply for various undergraduate and postgraduate degree programmes offered at the University. Studying at SUA is a great way of experiencing the Tanzanian lifestyle, exploring the beauty of the country, and making new friends, while at the same gaining knowledge for your degree qualifications.

The University has 102 foreign students (23 undergraduate and 79 postgraduate students) coming from 22 countries including Botswana, Germany, Liberia, Lebanon, Slovenia, Burundi, Cameroon, Ethiopia, Kenya, Malawi, Mozambique, the Comoros Islands, Zimbabwe, Lesotho, Namibia, the Democratic Republic of the Congo, Nigeria, Ghana, Rwanda, South Sudan, Uganda, Zambia and many more. Find more at: <https://www.arc.sua.ac.tz/international>

International Students Association of Sokoine University of Agriculture (ISASUA)

The International Students' Association of Sokoine University of Agriculture (ISASUA) is an affiliate of Sokoine University of Agriculture Students' Organisation (SUASO).

The association caters for international students in terms of addressing students' needs and interests on matters related to daily campus life and study at SUA through correspondence and meetings with University officials and other relevant agencies such as SUASO.

Membership is open to all international students enrolled at Sokoine University of Agriculture for undergraduate, postgraduate or research studies (research and postgraduate fellows). For more information, visit <https://www.suasua.ac.tz/isasua>



International Students at the College of Veterinary Medicine and Biomedical Sciences



What the students say ...



I was inspired to join SUA by two famous veterinarians in Lesotho namely Dr Bohloa, a former lecturer and the late Dr Lerotholi, a successful Veterinary hospital owner who graduated from Sokoine University of Agriculture (SUA). Drs. Bohloa and Lerotholi made have a strong impression that the two came from one of the best universities. As its vision states "...to be a leading University in the provision of quality knowledge and skills in agriculture and allied sciences...", SUA puts great efforts in fulfilling it. This also involves the contribution and hard work of skilled and dedicated lecturers who spearhead the magnets of curiosity, knowledge and wisdom in us. they work cordially with the laboratory technicians, who show us how things work and operate. They also constitute a workforce of academic advisors who tirelessly offer us advice, listen to us and provide us academic support where required. This has helped me much, even emotionally. Furthermore, we are given a golden opportunity of attending the field practical training which makes a greater part of who we will be in the future; for the best veterinarian is judged by his or her practical skills rather than his or her theoretical knowledge.

Ntsoaki Martha Teboho
a third year student in Bachelor of Veterinary Medicine from Lesotho

Sokoine University of Agriculture is a reputable high learning institution that imparts skills and knowledge to e students from different countries in different programmes, from undergraduate to post graduates. The training at SUA is science "theory and practical based"; where the trainees get hands-on skills. University has qualified lecturers and professors who are dependable, professionally highly qualified and dedicated. The University is characterized by the good landscape of a wide and clean environment, equipped with enough buildings including classrooms, a big library, laboratories and lavatories enough to accommodate the students. Moreover, there are some facilities such as the internet of the high bandwidth of WiFi, which enables students to access e-resources to enrich their acquired knowledge, do their assignments and learning new things. The internet also helps lecturers during the preparation of lectures and teaching materials. The warmest of the environment however and the availability of high technology characterized the institution and more efforts were made in creating a microclimate to make the environment suitable for lecturing and reading. The trees growing along the roadside make the campus attractive. In addition, the campus surrounding and its premises are characterized by green vegetation throughout the year due to orchards and vegetation which were grown and supplied with irrigated water. Amazingly, that beautiful garden of vegetables and orchard remain ever green and productive throughout the year. Thus, administrators, lecturers and students benefit daily from the harvest of vegetables and fruit sold at the selling points of the University Campus. In addition, the university location is accessible and surrounded by social services. The environment is so charming, calm, and is conducive for learning because it is on the outskirts of the town. I am happy to be in this environment, and surely from this good environment, my dream will be made true and complete my program successfully.



Drocelle Nirere
PhD candidate from RWANDA



The University and particularly the College of Veterinary Medicine and Biomedical Sciences stands firm to strengthen students both academically and socially within and outside the classrooms. There is so much support at the University that makes one feels belonging to one big family that does everything to ensure that the welfare of all members is well maintained. The quality of education at the College is very good, the programmes build confidence and capabilities to students of facing academic and life challenges at the University thereafter. If needed be, I would still choose SUA again for my Postgraduate studies.

Mats'ola Cecilia Mabesa
a fourth year student in Bachelor of Veterinary Medicine from Lesotho

I chose to come to SUA because the University is among the best universities in Africa with quality education. SUA taught me a lot, coming from French background back home, I had to learn English since SUA offers all programmes in English. Also, it was a good experience since lecturers are open-minded. It was easy after class hours to ask for anything and be listened to. If anyone was working on a project, then they would invite us to participate. . Being an international student was advantageous. Students are very welcoming and supportive. For example, in my first year, I was not able to follow lessons in classes but my classmates were there for me. I have to admit, I enjoyed doing my first degree in this amazing University.

Touffaiel Layat (from Comoros)
Graduated in 2021 with B. Sc. Degree in Agriculture General



University farms with a variety of crops particularly fruits and vegetables were the most impressive feature that caught my attention upon my arrival at SUA. I am an Agronomist by training and a farmer by practice (recognized among young farmers in East Africa by FAO). Thus, seeing these farms that serve as model farms for the communities around the University and an experimental ground for students gave me a positive impression and increased my expectations of gaining a lot from SUA. These farms provide the opportunity for students to do hands-on activities that are vital for practical courses such as agriculture.

Because I strongly believe in practice-based learning, and being a community-oriented person makes me appreciate this training model; and I must say that it is recommendable for all higher education institutions that aim at transforming and enriching the lives of the communities. This training model farm also provides room for sharing experience between partners (researchers, students and community members) and discussing local and home-grown solutions in addressing the emerging challenges facing the community. In the same vein, students get the opportunity o to acquire experience while still on campus which gives them the upper hand at the job market after graduation.

Tuyizere Jean Damascene
a PhD candidate at Sokoine University of Agriculture (SUA) - from Rwanda

DIRECTORATE OF UNDERGRADUATE STUDIES

Message from the Director

The Directorate of Undergraduate Studies (DUS) is pleased to welcome all students at Sokoine University of Agriculture (SUA).

Let me assure you that, you have made the right choice and decision to join SUA, which is one of the recognised Universities in Tanzania and globally. SUA embraces local, national and international multicultural learning environments.

Get ready to interact with colleagues and our diverse academic community. DUS is a one-stop centre for all academic issues for the undergraduate degree and non-degree programmes.

All necessary information regarding academic life at SUA is available to you through various sources and platforms, including the SUA website, social media, flyers and brochures.

It is our duty and responsibility to guide making choices of the programme you desire based on your entry qualifications and career goals. We admit and enrol you on the programme of your choice, we coordinate teaching and manage all your academic records. It is the responsibility of DUS to oversee staff and students' compliance with regulations, guidelines and policies on undergraduate studies.

In so doing, DUS ensures the academic environment is conducive and provides a memorable experience to students as a pathway towards their professional goals. With this spirit, DUS expects you to play your part and abide by regulations to complement SUA's efforts of maintaining high academic standards while enabling you to set and achieve your own goals. DUS is committed to working with you and other stakeholders to ensure the programmes we offer are relevant, up to date, meet your expectations and make you a high-quality graduate. Our programmes are designed to enable you to make a positive transformation in science and innovations for economic development.

DUS SUA delivers its service in teamwork. We have competent and dedicated staff with a wide range of expertise to serve you. The DUS has embraced information and communication technology to deliver the required service to you. We must facilitate you to realise and achieve your goals timely and smoothly. We urge you to be responsible and do the right things, in the right way, to enable us to serve you effectively and efficiently. In particular, you are expected to read, understand and abide by University regulations. You are advised to be organised and balance well studies, health, social life and finances to inconveniences on your academic path and make your stay at SUA a success.

DUS team wishes you a comfortable and successful stay at SUA and a prosperous endeavour beyond undergraduate studies. Kindly visit our website at <https://www.dus.sua.ac.tz> to learn more about us.



Dr. Nyambilila A. Amuri

Director, Directorate of Undergraduate Studies

WHAT WE OFFER

Sokoine University of Agriculture (SUA) offers 39 Bachelor degree programmes, 6 Diploma programmes and 2 Certificates through Colleges, Schools and Departments. The following are the list of all undergraduate programmes leading to the awards of Bachelor degree, Diploma and Certificate qualifications offered at SUA. Detailed information about each unit and programmes structures are described in this prospectus and provided on their respective websites

College of Agriculture

Bachelor of Science in Agriculture General
 Bachelor of Science in Horticulture
 Bachelor of Science in Crop Production and Management
 Bachelor of Science in Agronomy
 Bachelor of Science in Animal Science
 Bachelor of Science in Aquaculture
 Bachelor of Science in Range Management
 Bachelor of Community Development
 Bachelor of Science in Applied Agricultural Extension
 Bachelor of Science in Family & Consumer Sciences
 Bachelor of Science in Human Nutrition

College of Natural and Applied Sciences

Bachelor of Science in Environmental Sciences and Management
 Bachelor of Science in Information Technology
 Bachelor of Information and Records Management
 Bachelor of Science with Education (Agricultural Sciences and Biology)
 Bachelor of Science with Education (Chemistry and Biology)
 Bachelor of Science with Education (Chemistry and Mathematics)
 Bachelor of Science with Education (Geography and Biology)
 Bachelor of Science with Education (Geography and Mathematics)
 Bachelor of Science with Education (Informatics and Mathematics)
 Bachelor of Science with Education (Physics and Chemistry)
 Bachelor of Science with Education (Physics and Mathematics)
 Bachelor of Science with Education (Physics and Geography)
 Bachelor of Science with Education (Physics and Information Technology)
 Diploma in Records, Archives and Information Management
 Diploma in Information and Library Science
 Diploma in Tropical Animal Health and Production
 Diploma in Information Technology
 Certificate in Information Technology

School of Engineering Science and Technology

Bachelor of Science in Agricultural Engineering
 Bachelor of Science in Irrigation and Water Resources Engineering
 Bachelor of Science in Bioprocessing and Post harvest Engineering
 Bachelor of Science in Food Science and Technology

College of Veterinary Medicine and Biomedical Sciences

Bachelor of Veterinary Medicine
 Bachelor of Science in Biotechnology and Laboratory Sciences
 Diploma in Laboratory Technology

Mizengo Pinda Campus - Katavi

Bachelor of Science in Bee Resources Management
 Diploma in Crop Production and Management
 Certificate in Tour Guide and Hunting Operations

College of Forestry, Wildlife and Tourism

Bachelor of Science in Forestry
 Bachelor of Science in Wildlife Management
 Bachelor of Science in Wood Technologies and Value Addition
 Bachelor of Tourism Management

College of Social Sciences and Humanities

Bachelor of Rural Development
 Bachelor of Arts in Development Planning and Management

College of Economics and Business Studies

Bachelor of Science in Agricultural Economics and Agribusiness
 Bachelor of Agricultural Investment and Banking



For more information, contact:
 Directorate of Undergraduate Studies
 Email: admission@sua.ac.tz
 Website: www.dus.sua.ac.tz

APPLICATION, ADMISSION AND REGISTRATION INTO UNDERGRADUATE PROGRAMMES

Programmes Duration and Mode of Study

Sokoine University of Agriculture offers Bachelor degrees programmes in 3 years (6 Semesters), Diploma in 2 years (4 Semesters), and Certificate in 1 year (2 Semesters). BSc. Bioprocess and Post-Harvest Engineering, and BSc. Irrigation and Water Resources Engineering is offered in 4 years (8 Semesters) while Bachelor of Veterinary Medicine is offered in 5 years (10 Semesters). All programmes are offered in full time mode

When to apply

Invitations for application from qualified candidates are made between June and July of each year and successful candidates are notified between September and October after consideration and approval by university. Academic year starts in October/November

Registration into the Programmes

Admitted students are required to register into their programmes after payment of the required fees and acquisition of the National Health Insurance within two weeks after the start of the academic year using the Online self-registration module available in the SUA Student Information System (SUASIS).

Course Registration

After registration into the programme, students must register for Core and Elective courses specifically designed for respective programmes to meet the required credit hours, within the first two weeks of each Semester. After this process, you are now ready to begin an amazing academic journey at SUA.

How to apply

Applicants should apply directly to SUA using the online admission system. Click www.sua.ac.tz/apply and you will be directed step by step

Applicants who are non - Tanzanians and their certificates are not issued by National Examination Council of Tanzania (NECTA) or National Council for Technical Education (NACTE) are advised to send application letter and copies of their academic certificates to admission@sua.ac.tz.

Applicants with foreign secondary school certificates should arrange with the National Examinations Council (NECTA) and/or NACTE for equivalence translation before lodging their applications. Applications to all programmes must be accompanied by non-refundable application fee of Ten thousand Tanzanian shillings only (10,000/= or USD 30 for Non - Tanzanians)

You can contact the admissions office at any time before or during the application process, and you will get any help or advice you need via admission@sua.ac.tz



Admission requirements

General minimum admission requirements

Applicants completed Advance Level before 2014

Two principal passes with a total of 4.0 points from two subjects defining the admission into the respective programme (where A = 5; B = 4; C = 3; D = 2; E = 1)

Applicants completed Advance Level in 2014 and 2015

Two principal passes (Two Cs) with a total of 4.0 points from two subjects defining admission into the respective programme (where A = 5; B+ = 4; B = 3; C = 2; D = 1)

Applicants completed Advance Level from 2016

Two principal passes with a total of 4.0 points from two subjects defining the admission into the respective programme (where A = 5; B = 4; C = 3; D = 2; E = 1)

Equivalent applicants

At least four O' - Level passes (Two D's and above) or NTA Level III with four O' -Level passes or equivalent foreign qualifications as established by either NECTA or VETA; and at least a GPA of 3.0 for Ordinary Diploma (NTA level 6); OR an average of B for Full Technician Certificate (FTC) (where A = 5; B = 4; C = 3 and D = 2 points); OR an average of 'B' Grade for Health related awards such as Clinical Medicine and others; Or A Distinction for unclassified diplomas and certificates or Upper Second Class for classified non-NTA diploma.

Specific Admission Requirements

For specific admission requirements of each undergraduate degree programmes offered at SUA, kindly visit our website at: <https://www.sua.ac.tz/study/programmes>

DIRECTORATE OF POSTGRADUATE STUDIES, RESEARCH, TECHNOLOGY TRANSFER AND CONSULTANCY

Message from the Director

On behalf of the Directorate of Postgraduate Studies, Research, Technology Transfer and Consultancy (DPRTC), I take this opportunity to welcome you to the Sokoine University of Agriculture (SUA).

The DPRTC coordinates all matters related to postgraduate training in addition to research and publications generated by SUA staff and students. Also, DPRTC promotes linkages with other public and private stakeholders especially those related to enhancing university-industry partnerships and collaborations.

Being aware that some research activities generate new technologies and innovations, DPRTC is also responsible for promoting technology transfer in addition to coordinating consultancy services offered by the University.

Sokoine University of Agriculture is committed to training high calibre professionals and innovative researchers in all fields of agriculture and allied disciplines. Due to enormous experience of offering postgraduate studies, with the first PhD awarded by the then Faculty of Agriculture in 1972, we can assure you that, you will experience the high quality of postgraduate training offered by competent and highly skilled academic staff at SUA.

Gradually, the number of postgraduate students enrolled at SUA has been growing from about 50 in the 1980's, 100 in the late 1990's to 754 during the 2020/21 academic year. Although the majority of postgraduate students at SUA are Tanzanians, a good number of these students are international students from within and outside Africa.

Sokoine University of Agriculture has trained postgraduate students from different African countries including Benin, Chad, Ivory Coast, Botswana, Burundi, Democratic Republic of Congo (DRC), Ethiopia, Ghana, Kenya, Liberia, Madagascar, Malawi, Mozambique, Namibia, Nigeria, Rwanda, South Sudan, Swaziland, Uganda and Zambia. Other students are from outside Africa including Belgium, Japan and Norway.

We have more than 64 different postgraduate programmes ranging from Postgraduate Diplomas, Masters, Doctoral (PhD) and Postdoctoral programmes offered by the University as indicated in this prospectus. I am optimistic that you will not regret spending time with us to pursue postgraduate training. Kindly visit <https://www.dprtc.sua.ac.tz> to learn more about DPRTC.

Once again, I welcome you to Sokoine University of Agriculture.



Prof. Eron D. Karimuribo

Director, Directorate of Postgraduate Studies, Research, Technology Transfer and Consultancy

WHAT WE OFFER

Sokoine University of Agriculture offers Postgraduate Diploma, Master's and Ph.D. Programmes by Research and Thesis in all academic units (School and Colleges). Doctorate degrees are offered in various areas of specialization including Doctor of Philosophy (PhD), Postdoctoral Studies, Doctor of Science and the Doctor of honoris causa

College of Agriculture

- Master of Science in Crop Science
- Master of Science in Crop Protection
- Master of Science in Seed Technology and Business
- Master of Science in Horticulture
- Master of Science in Tropical Animal Production
- Master of Science in Aquaculture
- Master of Science in Soil Science and Land Management
- Master of Science in Human Nutrition
- Master of Science in Agricultural Extension
- Master of Science in Agricultural Statistics
- PhD in Soil and Water Management (Course work and Research)
- PhD Agro-Ecology (Course work and Research)
- PhD in Agricultural and Rural Innovation (PhD ARI) by Coursework and Research

College of Forestry, Wildlife and Tourism

- Postgraduate Diploma in Result-based Monitoring and Evaluation
- Master of Science in Wildlife Management and Conservation
- Master of Science in Forest Engineering
- Master of Science in Management of Natural Resources for Sustainable Agriculture
- Master of Science in Forest Products and Technology
- Master of Science in Forestry
- Master of Science in Agroforestry
- Master of Science in Ecosystems Science and Management
- Master of Science in Forest Resources Assessment and Management
- PhD in Forest Sciences

College of Social Sciences and Humanities

- Master of Arts in Rural Development
- Master of Arts in Project Management and Evaluation
- Master of Arts in Development Planning and Policy Analysis
- PhD in Policy Planning and Management
- PhD in Rural Development

College of Economics and Business Studies

- Postgraduate Diploma in Agricultural Economics
- Master of Science in Agricultural Economics
- Master of Science in Agricultural and Applied Economics
- Master of Business Administration (MBA) – Agribusiness
- Master of Business Administration – Evening Programme
- PhD in Agribusiness (Course work and research)
- PhD in Agricultural Economics (Research)

School of Engineering and Technology

- Master of Science in Post Harvest Engineering and Management
- Master of Science in Agricultural Engineering
- Master of Science in Irrigation Engineering and Management
- Master of Science in Land Use Planning Management
- Master of Science in Food Science
- Master of Science in Food Quality and Safety Assurance

College of Natural and Applied Sciences

- Master of Science with Education (Mathematics)
- Master of Science with Education (Biology)
- Master of Science with Education (Chemistry)
- Master of Science in Analytical Chemistry by Research
- Master of Science in Phytochemistry
- PhD in Analytical Chemistry by Research
- PhD in Phytochemistry by Research
- PhD in Phytomedicine by Research
- PhD in Mathematics
- PhD in Library Studies
- PhD in Geography and Environmental Studies

College of Veterinary Medicine and Biomedical Sciences

- Master of Preventive Veterinary Medicine
- Master of Science in Public Health and Food Safety
- Master Science in Public Health Pest Management
- Master of Science in Health of Aquatic Animal Resources
- Master of Science in Applied Microbiology
- Master of Science in Animal Reproduction and Biotechnology
- Master of Science in Molecular Biology and Biotechnology
- Master of Veterinary Surgery
- Master of Science in One Health Molecular Biology
- Master of Science in Parasitology
- PhD in Veterinary Medicine and Biomedical Sciences

School of Education

- Postgraduate Diploma in Education
- Master of Educational Curriculum and Instruction
- PhD in Education



APPLICATION, ADMISSION AND REGISTRATION INTO POSTGRADUATE PROGRAMMES

Programmes Duration and Mode of Study

All Master degree programmes are offered for two years for full time students and three years for part time students. In the case of full time students, the first year is dedicated for coursework, while the second year is for research and dissertation writing. Master's degree by Research and Thesis is offered for two years (24 months) and three years (36 months) on a full-time and part time basis respectively leading to a thesis. Master of Preventive Veterinary Medicine (MPVM), Master of Business Administration (MBA. Agribusiness) and Master of Arts (M.A) in Project Management and Evaluation degree programmes are offered for one year (12 months) and one and half years (18 months)

How to apply

Candidates can apply for admission into SUA postgraduate degree programmes through the Online application system which can be accessed at www.sua.ac.tz/apply. Make sure that you follow all the instructions before making the final submission. To complete and submit your application, you will be required to pay non-refundable Tanzanian Shillings TZS 50,000/= or US\$ 20 for international students as an application fee. You can contact the Admissions Office at any time before or during the application process via drpgs@sua.ac.tz

When to apply

Candidates for Postgraduate Diploma, Master and PhD Degree Programmes by Coursework and Dissertation are admitted and registered once every year for an academic year that starts in October of each year. Successful candidates are notified immediately after consideration and approval is made by the Senate and thereafter they embark on studies in October. The deadline for applications for normal application is the 30th of June and the late application is usually the 30th of September each year. Applications for Master by Research and Thesis are received throughout the year and studies can commence at any time of the year once admission is granted. Applications for PhD by Research and Thesis are received throughout the year and studies can commence at any time of the year once admission is granted.

Admission requirements

General Minimum Admission Requirements

Post Graduate Diploma

Applicants must have a Bachelor degree from a recognized institution of higher learning, deemed to be equivalent to at least a pass degree of SUA. Such qualification shall be in a subject or subjects relevant to the intended Postgraduate Diploma.

Master Degree by Coursework and Dissertation

A candidate shall either hold a Bachelor degree with GPA of at least 2.7 of SUA or a qualification from a recognised institution of higher learning with a GPA of 2.7. Candidates who hold unclassified degrees (e.g. BVM) should have an average of B grade in the subject of intended Master's degree. Candidates with Pass degree will be considered for admission if their undergraduate performance in the proposed subject of study was a B grade average or above. Candidates with Pass degree will also be considered for admission if they have satisfied the relevant College/School Postgraduate Studies Committees that they have exhibited academic potential through extensive fieldwork/research experience of at least three years and/or additional professional development courses of duration of at least three months.

Master Degree by Research and Thesis

A candidate for admission into Master by Research and Thesis shall hold a Bachelor degree with a GPA of at least 3.5 OR a bachelor degree with a minimum GPA of at least 2.7 and research experience of at least three years. An applicant will be considered to have acquired research experience when he/she has published at least one paper in SUA recognized journals or one paper in conference proceedings or has attended training on grant proposal writing or research methodology or data analysis.

PhD Degree Programmes (by Coursework and Dissertation & Research and Thesis)

A candidate for admission to the PhD degree programme of SUA shall hold a Master's degree of SUA or relevant Master's degree of equivalent standing from another approved University. For the PhD by Coursework and Dissertation, the applicant shall have master degree from recognized higher learning institutions with GPA of at least 2.7.

For the PhD by Research and Thesis

A candidate for admission to the PhD degree programme of SUA shall hold a Master's degree of SUA or a relevant Master's degree of equivalent standing from another recognised university. For the PhD by Coursework and Dissertation, the applicant shall have a Master's degree from a recognized higher learning institution with a GPA of at least 2.7.

For the PhD by Research and Thesis, the applicant must have a Master's degree of SUA or other higher learning institution with a GPA of at least 3.5 Or an average grade of B+ for unclassified Master degrees; OR a Master's degree by Research and Thesis; OR a Master of Philosophy in relevant discipline. The equivalent qualification must be directly relevant to, and compatible with the academic discipline the candidate wishes to pursue his/her Doctoral study. Candidates with qualifications in disciplines that are considered irrelevant to and incompatible with the academic discipline of the intended doctoral studies shall be required to take and pass relevant remedial courses. Candidates with only a Bachelor's degree but with First Class or an Upper Second honours or holders of a distinction in the relevant subject in the case of unclassified degree may also be considered for PhD registration after she/he has initially registered for the Master's degree and has done at least one full year's postgraduate coursework. The candidate must have been authorized by relevant College/School/ Directorate Academic Committees to upgrade their registration to PhD candidacy.

Specific Admission Requirements

For specific admission requirements for each postgraduate programmes offered at SUA, kindly visit our website at: www.dprtc.sua.ac.tz/programmes



College of Agriculture

The College of Agriculture (COA) is the most diverse academic unit at Sokoine University of Agriculture (SUA) with the mission of contributing towards the transformation of the agricultural sector through the provision of quality education, research, outreach and advisory services to the society in the areas of Agriculture, Agronomy, Agricultural Extension, Community Development, Animal health and production, Aquaculture, Range Sciences, Crop Science, Seed Technology, Horticulture, Human Nutrition, Consumer Sciences, Soil Sciences, Geological Sciences, Agro-Ecology and related areas.

The College comprises six departments namely the Department of Agricultural Extension and Community Development, the Department of Animal, Aquaculture and Range Sciences, the Department of Crop Science and Horticulture (DCSH), the Department of Human Nutrition and Consumer Sciences, the Department of Soil and Geological Sciences, and the SUA Model Training Farm.

The College has a strong Bureau of Consultancy (BACAS) that has accumulated vast experience in winning and successfully undertaking many multidisciplinary assignments. The main objective of BACAS is to ensure that the expertise and resources of the College are fully utilized in offering high standard consultancy and advisory services as well as professional development training and research services in Tanzania and in the Eastern and Southern Africa region. Find out more at <https://www.coa.sua.ac.tz/bacas>

Welcome to explore and discover all undergraduate programmes and courses offered at COA in this prospectus and consider becoming our student one day. Visit <https://www.coa.sua.ac.tz> for more details about the college, latest activities, research projects and staff profiles.



Prof. Bernard Chove
Principal, College of Agriculture

PROGRAMMES HOSTED BY THE DEPARTMENT OF CROP SCIENCE AND HORTICULTURE

www.coa.sua.ac.tz/crop

UNDERGRADUATE PROGRAMMES

Bachelor of Science in Agriculture General

The programme is intended to produce competent graduates who are able to integrate agricultural components in farming systems.

Semester 1

Core Courses: Genetics, Agricultural Botany, Introduction to Animal Production and Health, Agricultural Chemistry, Introductory Geology and Soil formation

Elective Courses: Principles of Agric. Engineering, Computer Applications, Principles and Practices of Horticulture, Introduction to Human Nutrition, Introduction to Agricultural Economics and Development Principles, Theories and Contemporary Issues of Development Communication Skills I

Semester 2

Core Courses: Introductory Entomology, Agricultural Microbiology, Plant Molecular Biology, Introduction to Animal Nutrition, Introductory Bio-statistics

Elective Courses: Communication Skills II, Physiology of Farm Animals, Introduction to Agricultural Extension, Agro-meteorology

Semester 3

Core Courses: Crop Physiology, Extension Methods, Vegetable Production, Agribusiness and Entrepreneurship Development, Fundamentals of Soil Science

Elective Courses: Applied Animal Nutrition, Introductory Land Surveying, Training for Development and Facilitation Methods, Soil Classification, Principles of Food processing and Preservation

Semester 4

Core courses: Research Methodology, Plant Pathology, Principles of Annual Crop Production, Weed Biology and Management, Pasture Establishment and Management

Elective Courses: Postharvest Physiology and Management, Fruit Production, Farm Structures and Animal Housing, Agricultural Price Analysis

Semester 5

Core Courses: Research Project I: “Research Methods and Proposal Development”, Seed Technology

Applied Entomology, Legislation on Plants, Food and Agricultural Inputs, Perennial Crops

Elective Courses: Management of Natural Resources and Sustainable Agriculture, Organic Farming, Farm Management. Agricultural Policy Analysis, Designing of Development Projects

Semester 6

Core Courses: Research Project II, Plant Breeding, Plant Biotechnology, Soil Fertility and Plant Nutrition, Farm Power and Mechanization

Elective Courses: Vertebrate Pests, International Agricultural Trade, Dairy Cattle Management, Agricultural Land Use, Planning

Career opportunities

The graduates of this programme are conversant with different types of agricultural industries from crops and livestock production, from smallholder farmers, cooperative unions to large scale production both in the field and in/greenhouses. Graduates of the programme can easily fit as employees in government and non-governmental units dedicated to farming, which is a fast- growing sector especially because many young people now are engaging in crop production for a living.

**Bachelor of Science in Horticulture**

The aim of this programme is to produce competent graduates who are able to integrate horticultural components in farming systems; to understand farmers’ circumstances and provide technical solutions compatible with the available resources; to be conversant with different types of horticultural industries, from smallholder farmer and cooperative level to large scale corporate production, and from field/greenhouse production to marketing and export aspects.

Semester 1

Core Courses: Genetics, Principles and Practices of Horticulture, Agricultural Botany, Introductory Geology and Soil formation, Agricultural Chemistry

Elective Courses: Computer Applications, Introduction to Agricultural, Economics and Development, Principles of Agric. Engineering, Principles, Theories and Contemporary Issues of Development, Communication Skills I

Semester 2

Core Courses: Introductory Entomology, Plant Molecular Biology, Agricultural Microbiology, Introductory Biostatistics, Plant Propagation and Nursery Management

Elective Courses: Communication Skills II, Principles of Hydrology and Irrigation, Introduction to Agricultural Extension, Agro-meteorology

Semester 3

Core Courses: Vegetable Production, Crop Physiology, Extension Methods, Fundamentals of Soil Science, Agribusiness and Entrepreneurship Development

Elective Courses: Irrigation and Drainage, Introductory Land Surveying, Soil Classification, Principles of Food processing and Preservation

Semester 4

Core Courses: Research Methodology, Plant Pathology, Fruit Production, Spices and Aromatic Crops, Weed Biology and Management, Postharvest Physiology and Management

Elective Courses: Food Storage and Handling, Annual Crops, Agricultural Administration and Management

Semester 5

Core Courses: Research Project I: “Research Methods and Proposal Development”, Legislation on Plants, Food and Agricultural Inputs, Seed Technology, Applied Entomology, Landscape Design and Floristry

Elective Courses: Organic Farming, Designing of Development Projects, Soil and Water Conservation and Management. Farm Management

Semester 6

Core Courses: Research Project II, Plant Breeding, Controlled Environment Horticulture, Plant Biotechnology, Ornamental Crops

Elective Courses: Soil Fertility and Plant Nutrition, International Agricultural Trade, Vertebrate Pests, Horticultural farming Systems

Career Opportunities

Graduates of this programme are able to demonstrate sound knowledge and understanding of sustainable ways to make horticultural crops more productive and profitable. They are able to employ themselves in horticultural-based and related firms such as landscape design among others, manage horticultural related projects, natural resources and environment, and assist farmers on matters related to sustainable ways of improving horticultural crops productivity. Graduates will be able to integrate horticultural components in farming systems; to understand farmers’ circumstances and provide technical solutions that are compatible with the available resources; to be conversant with different types of horticultural industries, from smallholder farmer and cooperative level to large scale corporate production, and from field/greenhouse production to marketing and export aspects.

Bachelor of Crop Production and Management

The aim of this programme is to increase a pool of skilled graduates in crop production with relevant technological skills for the implementation of programs to support the development of the agricultural and other related sectors in Tanzania.

Semester 1

Core Courses: Applied Botany, Genetics and Biotechnology, Applied Zoology, Introduction to Agricultural Economics and Development

Elective Courses: Principles and Practices of Horticulture, Computer Applications, Communication Skills, Beneficial Flora and Fauna in Farm Ecologies, Introduction to Agribusiness

Semester 2

Core Courses: Agricultural Microbiology, Principles and Practices of Soil Management, Soil Fertility and Plant Nutrition, Introductory Statistics, Agribusiness and entrepreneurship Development

Elective Courses: Agricultural Marketing Management, Introduction to Agricultural Extension, Bio Climatology, Science, Technology and Agrarian Development

Semester 3

Core Courses: Nut, Oil and Biofuel Crops, Cereals and Legumes, Insect Pests Management, Farm Skills I: Land, Preparation and Crop Establishment, Farm Power and Mechanization

Elective Courses: Introductory Land Surveying, Principles of Accounting, Irrigation and Drainage, Fundamentals of Precision Agriculture, Introduction to Gender and Development

Semester 4

Core Courses: Research Methodology, Weed Biology and Management, Plant Breeding, Root, Tuber and Fibre Crops, Plant Pathology and Disease Management, Farm Skills II: Crop husbandry and protection

Elective Courses: Plant Biotechnology, Mushroom Science and Production Technology, Specialty crops production, Ornamental Crops, Production Economics

Semester 5

Core Courses: Greenhouse Technology, Fruits and Vegetables Crops, Crop Production Enterprise I, Farm Skills III: Post-Harvest Handling and Processing, Research Project I: "Research Methods and Proposal Development"

Elective Courses: Legislations on Plants, Food and Agricultural Inputs, Organic Farming, Soil Pollution and Management of Agricultural Wastes, Farm Management, Agro-ecological Intensification, Gender and Development

Semester 6

Core Courses: Seed Production and Technology, Harvest and Post-harvest technology of non-perishable crops, Crop Production Enterprise II, Farm Skills IV: Value Addition of Farm Products, Research project II

Elective Courses: Irrigation Technology, Plant Propagation Technology, Postharvest Physiology and Management, Fertilizer Use, Agribusiness Project Appraisal and Evaluation

Career Opportunities

Graduates of this programme can be entrepreneurs with skills for specific crop groups, including fibre, oil and bio-fuel crops, cereals, legumes, roots, tubers and nuts. Graduates will have technical competence in farm skills, biotechnology, green house/screen house production, drip irrigation and value addition, among others. Graduates of the programme can easily employ themselves or can fit as employees in government and non-governmental units dedicated to agriculture.



Diploma in Seed Technology

The overall objective of Diploma in Seed Technology is to produce field officers, technicians, technologists or graduates who are competent in the specialized field of seed technology, a sub-section within agricultural science and who are capable of addressing relevant problems and challenges affecting the seed industry.

Semester 1

Core courses: Botany, Introduction to statistics, Seed Biology, Principles of seed Production, Introduction to Plant Genetics

Elective Courses: Principles of Management, Introduction to Microcomputer, Communication skills 1

Semester 2

Core courses: Fundamentals of Soil Science, Introduction to Agronomy, Introduction to Plant Breeding and Biotechnology, Seed Business Management and Entrepreneurship Farm machinery

Elective Courses: Agricultural Meteorology, Principles of Farm Accounting, Principles of Psychology and Sociology

Semester 3

Core courses: Pests Diagnostic Techniques and their Management I, Principles of Crop Experimentation, Plant Variety Testing, Protection, Maintenance and Release, Introductory Soil Fertility and Fertilizer Management, Agricultural Extension

Elective Courses: Principles of Development, Seed supply chain, Small Scale Irrigation

Semester 4

Core courses: Pests Diagnostic Techniques and their Management II, Pesticides Use and Management, Laboratory Seed Testing, Seed Quality and Certification, Post-harvest handling of seed

Elective Courses: Project Management, Seed Trade, Policies and Regulations, Gender Roles in Seed Production.

Career Opportunities

Graduates of this programme work as Field officers, Technicians or Technologists who are competent in the specialized field of seed technology, a sub-section within agricultural science and who are capable to address relevant problems and challenges affecting the seed industry. Graduates can employ themselves in seed industry or be employed in various areas including private organizations and government.

POSTGRADUATE PROGRAMMES

Master of Science in Crop Science

The general objective of the MSc Crop Science is to produce graduates who can critically analyse and synthesize all matters related to agriculture for sustainable growth of the agricultural industry in Tanzania and beyond.

Semester 1

Core Courses: Research Design and Analysis of Crop Experiments, Advanced Crop Production, Scientific Communication

Specialization Cores Courses: Agronomy: Crop Physiology and Modelling, Soil water-plant Relationship, Advanced Plant Nutrition, Crop Improvement: Population and Quantitative Genetics, Cytogenetics, Crop Species Diversity, Specialization: Crop Protection, Advanced Entomology, Weed Science and Management, Plant Mycology Horticulture: Vegetable and Spice Production, Advanced Ornamental Plant Production, Advanced Plant Propagation

Elective Courses: Farm Management and Planning, Pathogenesis and Disease Resistance, Agribusiness Risk Management, Pesticide Chemistry and Toxicology, Farming System and Technology Integration

Semester 2

Core Courses: Seed Production Systems, Indigenous Knowledge, Genetic Resources and Intellectual Property

Specialization Compulsory Courses

Agronomy: Soil Fertility and Management, Field Crop Production, Agricultural Water Management,

Crop Improvement: Advanced Plant Breeding, Advances in Plant Biotechnology, Plant Genetic Engineering

Crop Protection: Plant Virology, Phytobacteriology, Vertebrate Pest Management, Plant Nematology Horticulture: Fruit Production, Postharvest Physiology and Technology for Fresh Produce, Controlled Environment Horticulture

Elective Courses: Agricultural Admin. and Management, Geographical Information Systems, Seed Pathology, Seed Quality Assessment, Plant stress physiology, Agricultural Water Management

Semesters 3 and 4

Core Course: Research Proposal, Research Results Seminar I, Research Results Seminar II, Oral Defence, MSc Dissertation

Master of Science in Seed Technology and Business

The overall aim of the MSc. Seed Technology and Business is to build capacity in seed technology, seed systems, seed business and seed regulatory policies for implementation of an integrated seed sector development in Tanzania and beyond.

Semester 1

Core Courses: Research Design and Analysis of Crop Experiments, Seed Biology and Physiology, Seed Production Systems, Techniques in Variety Development, Seed Multiplication and Production Planning, Seed Pathology and Storage Pest Management

Elective Courses: Contemporary Issues in Seed systems, Advanced Plant Breeding, Agribusiness Risk Management, Farming System and Technology Integration

Semester 2

Core Courses: Seed Harvesting, Processing and Storage, Crop Variety Testing and release, Quality Control and Certification, Integrated Seed Systems, Strategic Agribusiness Management, Seed Marketing and Seed Business Management, Seed Entrepreneurship, Research Proposal

Elective Courses: Indigenous Knowledge, Genetic Resources and Intellectual Property, Business Laws and Ethics, Policy Formulation Analysis

Semesters 3 and 4

Core Courses: Research Proposal, Research Results Seminar I, Research Results Seminar II, Oral defence, MSc Dissertation

Master of Science in Crop Protection

The general objective of the MSc. Applied Crop Protection is to produce graduates with capability to conduct research, quarantine and regulatory functions and advisory services in crop protection aspects.

Semester I

Core Courses: Pest Management I – (Insects, rodents, birds, vermin), Surveillance and Prevention of Pests Introduction, Plant pest diagnostics, Decision Support Systems in Crop Protection, Research Proposal Writing and Research Management

Elective Courses: Alien Invasive Pests, Pesticide Residues and Food Safety, Seed Quality Assessment, Research Methods in Crop Protection, Molecular Methods and Technologies in Crop Protection, Scientific Communication, Farm management and Planning

Semester 2

Core Courses: Pest Management II (Weeds, diseases, nematodes), Pest Population Ecology of insects, weeds, microbes and rodents, Yield Loss assessment, Crop Protection Laws, Regulations and Standards in Agricultural Trade, Agricultural Administration and Management

Elective Courses: Crop Protection Environmental Management, Pesticide Application Technologies, Plant stress physiology, Production of Clean Plant Materials, Pathogenesis and Disease Resistance, Pesticide Chemistry and Toxicology, Indigenous Knowledge, Genetic Resources and Intellectual Property, Advanced Geographical Information Systems

Semesters 3 and 4

Core Courses: Research Proposal, Research Results Seminar I, Research Results Seminar II, Oral Defense, MSc. Dissertation

Master of Science in Crop Protection

The general objective of the MSc. Applied Crop Protection is to produce graduates with capability to conduct research, quarantine and regulatory functions and advisory services in crop protection aspects.

Semester 1

Core Courses: Pest Management I – (Insects, rodents, birds, vermin), Surveillance and Prevention of Pests Introduction, Plant pest diagnostics, Decision Support Systems in Crop Protection, Research Proposal Writing and Research Management

Elective Courses: Alien Invasive Pests, Pesticide Residues and Food Safety, Seed Quality Assessment, Research Methods in Crop Protection, Molecular Methods and Technologies in Crop Protection, Scientific Communication, Farm management and Planning

Semester 2

Core Courses: Pest Management II (Weeds, diseases, nematodes), Pest Population Ecology of insects, weeds, microbes and rodents, Yield Loss assessment, Crop Protection Laws, Regulations and Standards in Agricultural Trade, Agricultural Administration and Management

Elective Courses: Crop Protection Environmental Management, Pesticide Application Technologies, Plant stress physiology, Production of Clean Plant Materials, Pathogenesis and Disease Resistance, Pesticide Chemistry and Toxicology, Indigenous Knowledge, Genetic Resources and Intellectual Property, Advanced Geographical Information Systems

Semesters 3 and 4

Core Courses: Research Proposal, Research Results Seminar I, Research Results Seminar II, Oral Defence, MSc. Dissertation



Master of Science in Horticulture

The overall objective of the MSc. Horticulture is to produce graduates who can analyze, critic, synthesize and generate solutions to production, postharvest management, agribusiness, quality and safety, and policies and regulations related to horticulture for sustainable growth and development of the horticulture industry in Tanzania and beyond.

Semester 1

Core Course: Research Design and Analysis of Crop Experiments, Vegetable and Spice Crop Physiology and Production, Postharvest physiology of horticultural Produce, Hydroponics and Aggregate Culture Technology, Agribusiness Supply Chain Management

Elective Courses: Advanced Plant Propagation, Processing and packaging of horticultural produce, Soil Fertility and Management, Surveillance and Prevention of pests introduction, Seed Production Systems, Farm Business Management

Semester 2

Core courses: Fruit Crop Physiology and Production, Ornamental Plant Physiology and Floriculture, Agri-food and Trade Quality Standards, Greenhouse Design, Construction and Management, Agribusiness Marketing: International and Domestic

Elective Courses: Postharvest handling and technology of horticultural produce, Horticultural crop diseases and pests management, Pesticide Residues and Food Safety, Molecular application in horticultural crop improvement, Water Resources and Irrigation Technologies, Entrepreneurship Development in Agribusiness

Semester 3 and 4

Research proposal and dissertation development

PhD Agro-Ecology (Course work and Research)

The overall objective of the PhD Agro-ecology is to develop human resource capacity in agro-ecology and at the same time strengthen SUA institutional capacity in impact-oriented training and research in Agro-ecology.

Semester 1

Core Courses: Holistic Systems Thinking and Analysis, Agro-ecology and Sustainable Resource Management, Integrated Crop-livestock-aquaculture Biosystems

Elective Courses: Gender equity and power dynamics in agro-ecology, Application of Innovation Systems in Agricultural and Rural Development, Advances in Conservation Agriculture, Environmental and Natural Resource Economics, Modelling in Agro-ecology, Technologies in Agro-ecological Pest Management

Bioenergy Technologies, Agroforestry and Sustainable Livelihoods

Semester 2

Core Courses: Research Methods and Data Management, Agro-ecosystems and Climate Change, National Laws and International Agreements in Agro-ecology

Elective Courses: Social Organization in Agro-ecology, Economics of Agro-ecological Products, Practices and Technologies for Agro-ecological Soil Fertility Management, Food Safety Standards, Trade Regulations and Certification, Value Chain Analysis and Development, Non-Traditional Agro-Products, Integrated Watershed Management, Lobbying and Advocacy for Agro-ecology, Ecological Management of Grazing Animals



PROGRAMMES HOSTED BY THE DEPARTMENT OF ANIMAL, AQUACULTURE AND RANGE SCIENCES

www.coa.sua.ac.tz/animal

UNDERGRADUATE PROGRAMMES

Bachelor of Science in Animal Science

The overall objective of the programme is to provide thorough degree-level training in Animal Science and equip students with basic knowledge and applied knowledge in animal production. The programme train and produce graduates with knowledge and skills needed to manage effectively the livestock sector and communicate effectively livestock extension information and assist farmers on sustainable improved livestock production

Semester 1

Core courses: Introduction to Animal Production and Health, Introductory Animal Genetics, Chemistry for Life Sciences, Basic Anatomy of Farm animals, Parasitology and Entomology Animal Microbiology

Elective Courses: Principles, Theories and Contemporary Issues of Development, Computer Applications, Introduction to Agricultural Economics and Development, Introductory Sociology, Basic Mathematics, Communication Skills I

Semester 2

Core Courses: Physiology of Farm animals, Introduction to Animal Nutrition, Grassland Botany, Communication Skills II, Introductory Statistics, Introductory Biochemistry

Elective Courses: Agro-Meteorology, Introduction to Agricultural Extension, Introduction to Agribusiness Principles of Administration & Management

Semester 3

Core Course: Applied Animal Nutrition, Growth and Development of farm animals, Livestock Policies, Legislations and Animal Welfare, Prevention and Control of Livestock Diseases, Fundamental of Soil Science, Biometry

Elective Courses: Extension Methods, Agricultural Marketing Management, Agribusiness and Entrepreneurship Development Communication Skills I

Semester 4

Core courses: Animal Feeds, Processing and Conservation, Principles of Animal Breeding, Farm Structures and Animal Housing, Pasture Establishment and Management, Reproductive Physiology and Artificial Breeding Livestock Economics

Elective Courses: Extension Programme Planning and Evaluation, Conflicts Management, Farm power and Mechanization

Semester 5

Core courses: Research Project I: Research Methods and Proposal Development, Applied Animal Breeding, Beef Cattle Management, Small Ruminant Management, Poultry and Rabbit Production, Pig Production

Elective Courses: Introduction to Ecology and Wildlife Management, Principle and practices for Rangeland Management, Soil Pollution and Management of Agricultural Wastes, Agribusiness Project Appraisal and Evaluation, Farm Management, Information and Communication Management for Agricultural Professionals, Communication Skills I

Semester 6

Core courses: Dairy Cattle Management, Milk and Milk Products, Meat and Meat Products, Processing and Preservation of Hides and Skins, Animal Biotechnology, Research Project II: Report Writing

Elective Courses: Draught Animal Management and Non-Conventional Animal Farming, Farm Animal Genetic Resource Management, Principles and Practice of Aquaculture, Ranch Planning and Management, Human Resource Management

Career Opportunities

Graduates of this programme can work as Livestock Extension Officers, Farm Managers for both government and private livestock farms, livestock tutors in training institutions and livestock research officers or can employ themselves. Prospective employers include government/district councils, livestock training institutions, research institutions, government and private ranches, non-governmental organizations, private livestock farms, private poultry farms, livestock product processing factories, etc.

Bachelor of Science in Aquaculture

The general objective is to produce graduates with profound knowledge and skills in Aquaculture and related fields to cater for sustainable improvement of aquaculture production, conservation of wild aquatic resources and safeguard against habitat destruction.

Semester 1

Core courses: Introduction to Aquaculture, Biology of Fishes, Chemistry for Life Sciences, Introductory Animal Genetics, Aquatic Microbiology, Computer Applications

Elective Courses: Fundamentals of Ecology and Ecosystems, Introduction to Animal Production and Health, Introduction to Agricultural Economics and Development, Introductory Sociology, Principles, Theories and Contemporary Issues of Development, Communication Skills I, Food Microbiology I

Semester 2

Core courses: Limnology, Marine Ecology, Invertebrate Biology, Introductory statistics, Introductory Biochemistry, Communication Skills II

Elective Courses: Food Biotechnology I, Principles of Administration and Management, Introduction to Animal Nutrition, Introduction to Agribusiness, Agro-Meteorology

Semester 3

Core courses: Aquaculture Genetics and Breeding, Aquaculture Reproduction and Hatchery Management
Aquaculture Production Systems I, Mariculture I, Biometry

Elective Courses: Extension Methods, Conservation of Wetlands, Hydrogeology and Water Resource Management, Food Microbiology II, Agribusiness and Entrepreneurship Development

Semester 4

Core Courses: Non-Conventional Aquaculture, Aquaculture Nutrition and Feed Technology, Aquaculture Production Systems II, Programme Planning and Evaluation, Production Economics

Elective Courses: Sensory Evaluation of Foods and Product Development, Conflicts Management, Climate Change

Semester 5

Core courses: Research Project I: Research Methods and Proposal Development, Diseases & Health Management in Aquaculture, Integrated Aquaculture, Fisheries Science and Management, Integrated Watershed, Management

Elective Courses: Poultry and Rabbit Production, Food Quality Assurance and Legislation, Biodiversity Measuring and Monitoring, Information and Communication Management for Agricultural Professionals

Semester 6

Core courses: Research Project II: Report Writing, Post-Harvest Handling and Value Addition of Aquatic Products, Aquaculture and the Environment, Mariculture II, Policies, Regulations and Ethics for Aquaculture and Fisheries

Elective Courses: Human Resource Management, Management of Natural Resources and Sustainable Agriculture, Ecological Restoration, Total Credits for electives

Career Opportunities

Graduates of this programme can work as Fisheries/Aquaculture Extension Officers, Farm Managers for both government and private fish farms, fisheries tutors in training institutions and Fisheries/Aquaculture Research Officers or can employ themselves. Prospective employers include government/district councils, fisheries training institutions, research institutions, non-governmental organizations, private fish farms, and fish product processing factories.

Bachelor of Science in Range Management

The overall objective of this programme is to produce competent staff in the field of Range Management and increase manpower capacity in management, research, advisory and consultancy services with the view to improve productivity of rangelands.

Semester 1

Core Courses: Introduction to Range Management, Range Ecology, Introduction to Animal Production and Health, Basic Anatomy of Farm Animals, Introductory Sociology, Computer Applications

Elective Courses: Introduction to Agricultural Economics and Development, Introduction to Micro and Macro Economics, Animal Microbiology, Principles, Theories and Contemporary Issues of Development, Communication Skills I, Chemistry for Life Science

Semester 2

Core courses: Range Plant Eco-physiology, Principles of Land Use Planning, Grassland Botany, Introduction to Animal Nutrition, Introductory Statistics, Communication Skills II

Elective Courses: Agro-Meteorology, Physiology of Farm Animals, Introductory Anthropology, Introduction to Agribusiness, Principles of Administration and Management

Semester 3

Core Courses: Animal Grazing Behaviour and Management, Ecology and Control of Vectors and Parasites, Rangeland Fire Ecology and Management Fundamentals of Soil Science, Biometry, Management of Drylands

Elective courses: Agricultural marketing Management, Communication Skills I, Agribusiness and Entrepreneurship Development, Extension Methods

Semester 4

Core Courses: Rangeland Biodiversity Utilization and Conservation, Pasture Establishment and Management, Game Farming, Wildlife Conservation Principles, Animal Feed Processing and Conservation, Conflicts Management

Elective courses: Control of Range Invasive Plants, Production Economics, Climate Change, Farm Structure and Animal Housing

Semester 5

Core Courses: Research Project I: Range research Methods and Proposal Development, Range inventory and monitoring, Pastoralism and Environment, Range research tools, Meat production from range ruminant, Forage Conservation Techniques

Elective Courses: Principles and Practices for Rangeland Management, Soil Fertility and Land Productivity, Business Strategy, Farm Management, Designing of Development Projects, Communication Skills I

Semester 6

Core Courses: Ranch Planning and Management, Research Project II, Range Improvement, Forage Seed Production Technologies, Rangeland Water Development and Management, Environmental Impact Assessment in Rangeland Development

Elective Courses: Processing and preservation of Hides and Skins, Principles and Practice of Aquaculture, Wildlife Based Tourism and Ecotourism, Dairy Cattle Management, Project Appraisal, Monitoring and Evaluation

Career Opportunities

Graduates of this programme can work as Range Extension Officers, Range/Farm Managers for both government and private livestock farms, livestock tutors in training institutions and livestock research officers or can employ themselves. Prospective employers include government/district councils, livestock training institutions, research institutions, government and private ranches, non-governmental organizations, and private livestock farms.



POSTGRADUATE PROGRAMMES

Master of Science in Tropical Animal Production

The general objective of the program is to produce competent and specialized animal scientists and/or technologists who shall either serve in the livestock industry, academic institutions and other livestock related undertakings or engage themselves in livestock related businesses and service delivery.

Semester 1

Core Courses: Livestock Production Systems, Physiology of Reproduction, Growth and Adaptation, Animal Feed Science and Technology, Breeding strategies for farm animals

Elective Courses: Rangeland Resources Management, Non ruminant Nutrition, Animal Nutritional Requirements and Feed Rationing, Livestock Biodiversity and Conservation, Indigenous Knowledge, Genetic Resources and Intellectual Property

Semester 2

Core Courses: Research Methodology and Statistical Analysis, Management of Grassland Systems, Animal health & Biosecurity, Farm Planning and Management

Elective Courses: Processing of dairy products, Meat and meat processing, Animal Genomics & Biotechnology, Research Techniques in Animal Nutrition, Range Resource Economics, Grazing ecology, Ranch Management, Ruminant Nutrition, Entrepreneurship Development in Agribusiness

Semesters 3 and 4

Research Work and Dissertation

Master of Science in Aquaculture

The general objective is to produce graduates with profound knowledge and skills in specialized areas of Aquaculture (i.e. Nutrition, Breeding and Production systems) to cater for sustainable growth of the aquaculture sub-sector in Tanzania and beyond.

Semester 1

Core Courses: Research Methodology and Statistics, Trends and Contemporary issues in Aquaculture, Biosecurity and Welfare in Aquaculture, Water Quality Management, Advanced Mariculture

Elective courses: Aquaculture Economics, Fish Population Dynamics and Stock Assessment, Environmental Contaminants and Aquatic Toxicology, Advanced Geographic Information System

Semester 2

Core courses: Aquaculture Nutritional Physiology, Aquaculture Feed Technology, Fish Reproduction and Hatchery Management, Fish Breeding and Biotechnology, Aquaculture Production Systems

Elective courses: Farming of Ornamental Fish, Post-harvest Handling and Value addition, Conservation Genetics for Aquatic Resources, MSc Research Proposal Development

Semesters 3 and 4

Research Work and Dissertation (Data collection, Analysis and Dissertation Write up)

PROGRAMME HOSTED BY THE DEPARTMENT OF SOIL AND GEOLOGICAL SCIENCES

www.coa.sua.ac.tz/soil

UNDERGRADUATE PROGRAMMES

Bachelor of Science in Agronomy

The aim of this programme is to produce graduates with profound knowledge and skills in Agronomy and related fields to cater for sustainable growth and development of the agricultural industry in Tanzania and beyond.

Semester 1

Core Course: Introductory Geology and Soil Formation, Agricultural Chemistry, Principles of Agricultural Engineering, Genetics, Agricultural Botany

Elective Courses: Computer Applications, Basic Mathematics, Communication Skills I, Introductory Sociology, Introduction to Agricultural, Economics and Development, Introduction to Micro and Macro Economics, Principles of Accounting, Theories, Principles and Contemporary issues in Development

Semester 2

Core Courses: Agro-Meteorology, Introductory Soil Physics, Agricultural Microbiology, Communication Skills II, Introductory Entomology, Introductory Statistics

Elective Courses: Plant Molecular Biology, Introduction to Agricultural Extension, Plant Propagation and Nursery, Management, Principles of Hydrology and Irrigation, Introduction to Agribusiness

Semester 3

Core Course: Soil Chemistry, Soil Classification, Management of Dry and Wet Lands, Biometry, Crop Physiology

Elective Courses: Extension Methods, Communication Skills I, Agribusiness and Entrepreneurship Development, Introduction to Gender and Development, Vegetable Production

Semester 4

Core Course: Plant Pathology, Weed Biology and Management, Annual Crops, Soil biology, Physical Manipulation of the Soil

Elective Courses: Agricultural Machinery Management, Production Economics, Land Surveying, Pasture Establishment and Management

Semester 5

Core Course: Research project 1: Research Methods and Proposal Development, Land Husbandry and Conservation Agriculture, Farm and Agronomic Enterprise skills, Seed Technology, Applied Entomology

Elective Courses: Introduction to Remote Sensing, Soil Pollution and Management of Agricultural wastes, Legislation on Plants, Food and Agricultural Inputs, Farm Management, Organic Farming, Communication skills 1, Principles and Application of Agroforestry

Semester 6

Core Course: Soil Fertility and Plant Nutrition, Agricultural Land use Planning, Research Project II, Plant Breeding, Perennial Crops

Elective Courses: Irrigation Agronomy, Management of Natural Resources and Sustainable Agriculture, Climate Change Challenges in Agriculture, Plant Biotechnology

Career opportunities

Graduates of this programme work as Farm Managers, Agronomist, Technical Agriculture, Advisors or Extension Officers. Prospective employers include research institutions, private institutions/companies, NGOs and Government.

POSTGRADUATE PROGRAMMES

MSc. Soil Science and Land Management

The programme is designed to train candidates for research and teaching positions in educational and research institutions, research administration and extension in government departments and parastatal organizations. The programme also aims at training candidates for self-employment in the agricultural sector

Semester 1

Core courses: Research Planning, Experimentation and Statistics, Soil Microbiology & Biochemistry, Soil Genesis, morphology and classification, Advanced Soil-Water-Plant relationships, Advanced Geographic Information System

Elective courses: Soil Mineralogy, Soil and Water Pollution, Advanced Remote Sensing and Image Interpretation, Advanced Soil Physics, Advanced Soil Chemistry,

Semester 2

Core courses: Research innovations management and commercialization, Advanced Plant Nutrition, Soil Fertility & Management, Soil & Water Management, Soil Survey and Land Evaluation

Elective courses: Chemistry of Soil Organic Matter, Salt-Affected Soils, Advanced Dryland Management, Agricultural Meteorology, MSc Research proposal development

Semesters 3 and 4: MSc Research proposal development, MSc Dissertation

PhD in Soil and Water Management (Course work and Research)

This is a four-year PhD programme that consists of a coursework and research that leads to a dissertation.

Semester 1

Core courses: Agricultural Research Methods, Scientific Writing and Presentation Skills, Soils of the Tropics and Subtropics, Climate Change, Challenges, Mitigation and Adaptation in Agriculture

Elective courses: Participatory and Action Research, Knowledge Management and Communication

Semester 2

Core courses: Integrated soil fertility management: Soil Fertility Management for Sustainable Agriculture, Plant nutrition and crop productivity, Soil Health, Advances in Agronomy, Water resource management: Soil-water management in the tropics, Advances in Soil-Plant-Water Relations, Applied Soil-Water-Crop Modelling, Irrigation and Water Resources Management, Integrated Watershed Management.

Elective courses: Agricultural Land Resources Planning: GIS and remote sensing applications, Land Resources Planning for Agriculture, Integrated Land Use Management, Advances in conservation Agriculture, PhD proposal development

Years 2, 3 and 4

PhD proposal development, PhD Dissertation

PROGRAMMES HOSTED BY THE DEPARTMENT OF HUMAN NUTRITION AND CONSUMER SCIENCES

www.coa.sua.ac.tz/nutrition

UNDERGRADUATE PROGRAMMES

Bachelor of Family and Consumer Sciences

The aim of the programme is to prepare students for family life, work life and career in consumer sciences by providing opportunities to develop knowledge, skills and attitude, and behaviors needed for strengthening the wellbeing of individuals and families across life span.

Semester 1

Core courses: Principles of Family and Consumer Sciences, Introduction to Textile Science, Basic Mathematics, Introduction to Human Nutrition, Introductory Sociology, Computer Applications

Elective courses: Introduction to Agricultural Economics and Development, Introduction to Food Science, Food Microbiology I, Introduction to Micro and Macro Economics, Principles, Theories and Contemporary Issues of Development, Communication Skills I

Semester 2

Core courses: Introduction to Household Studies, Principles and techniques of garment construction I, Fashion Design, Pattern Drafting and Adaptation, Child Care and Development, Introductory Statistics, Introductory Anthropology, Communication Skills II

Elective courses: Nutrition Throughout the Life Cycle, Nutritional Assessment and Surveillance, Principles of Administration and Management, Introduction to Agribusiness

Semester 3

Core courses: Applied Interior Design and Planning, Information Technology Applications in Family and Consumer Science, Introduction to Tourism and Hotel Management, Principles of Family Resource Management, Early Childhood Education and Evaluation, Principles and Techniques of Garment Construction II, Introduction to Gender and Development

Elective courses: Agribusiness and Entrepreneurship Development, Principles of Food Processing and Preservation, Extension Methods, Food Microbiology II, Communication Skills I

Semester 3

Core courses: Applied Interior Design and Planning, Information Technology Applications in Family and Consumer Science, Introduction to Tourism and Hotel Management, Principles of Family Resource Management, Early Childhood Education and Evaluation, Principles and Techniques of Garment Construction II, Introduction to Gender and Development

Elective courses: Agribusiness and Entrepreneurship Development, Principles of Food Processing and Preservation, Extension Methods, Food Microbiology II, Communication Skills I

Semester 4

Core courses: Consumer Behaviour, Protection and Education, Cultural Aspects of Clothing, Principles of Crafts and Design, Child Developmental Psychology, Geriatric Nutrition and Counselling, Food Storage and Handling, Community Empowerment

Elective courses: Computer aided design for the fashion industry, Nutritional Biochemistry, Nutrition and Diseases, Sensory Evaluation of Foods and Product Development, International Relations and Economic Cooperation, Introduction to Demography and Population Studies, Adult Learning and Development, Business Laws and Ethics

Semester 5

Core courses: Research Project I: Research methods and Proposal Development, Meal Planning and Management, Housing, Household Equipment and Furnishing, Catering and Institutional Feeding, Consumer Counselling, Community Health and Health Promotion, Socio-economics of Rural Livelihoods

Elective courses: Advocacy and Resource Mobilization in Community, Food Hygiene, Business Strategy, Gender and Development, Introduction to Human Resources Management, Information and Communication Management, Communication Skills I

Semester 6

Core courses: Family Life Education, Costume Design, Construction and Apparel, Consumer Information, Education and Communication, Fashion Merchandising, Research Project II

Elective courses: Sociology of Development, Project Appraisal, Monitoring and Evaluation, Human Resources Management

Career Opportunities

Graduates can engage in research, work as consumer education specialists, consultants in private and public organizations, advisors in textiles and household equipment industries, entrepreneurs, teaching/lecturing, fashion designing, sensitization and advocacy, Social Welfare Officers, product development, early childhood education specialists, consumer education specialists and hospitality services. Graduates can also be self-employed

Bachelor of Science in Human Nutrition

The aim of this programme is to develop students' knowledge and understanding of the principles of human nutrition in terms of science and practice, by laying a broad foundation in applied food and nutrition science and aspects of management of nutrition interventions which is informed by research.

Semester 1

Core courses: Nutritional Physiology, Introduction to Human Nutrition, Introduction to Food Science, Food Biochemistry, Food Microbiology I, Basic Mathematics, Computer Applications

Elective courses: Introductory Sociology, Introduction to Agricultural Economics and Development, Introduction to Micro and Macro Economics, Principles, Theories and Contemporary Issues of Development, Agriculture and Rural Development, Communication Skills I

Semester 2

Core courses: Nutrition Throughout the Life Cycle, Child Care and Development, Nutritional Assessment and Surveillance, Introductory to Food Biotechnology I, Food Analysis and Instrumentation I, Introductory Statistics, Communication Skills II

Elective courses: Introductory Anthropology, Principles of Administration and Management, Science, Technology and Agrarian Development, Introduction to Agribusiness

Semester 3

Core courses: Clinical Nutrition, Nutritional Epidemiology, Livelihood Analysis, Information Technology Applications in Nutrition, Design and Planning Nutrition Programmes, Food Analysis and Instrumentation II, Food Chemistry, Food Microbiology II

Elective courses: Principles of Food Processing and Preservation, Introduction to Gender and Development, Organizational Behaviour, Agribusiness and Entrepreneurship Development, Communication Skills I

Semester 4

Core courses: Nutritional Biochemistry, Nutrition and Diseases, Food and Nutrition Security, Geriatric Nutrition and Counselling, Sensory Evaluation of Foods and Product Development, Food Storage and Handling, Extension Programme Planning and Evaluation

Elective courses: Adult Learning and Development, Introduction to Demography and Population Studies, International Relations and Economic Cooperation, Child Developmental Psychology

Semester 5

Core courses: Research Project I: Research Methods and Proposal Development, Community Health and Health Promotion, Nutritional Anthropology, Advocacy and Resource Mobilization in Community, Catering and Institutional Feeding, Food Hygiene

Elective courses: Applied Food Biotechnology II, Food Quality Assurance and Legislation, Information and Communication Management, Gender and Development, Communication Skills I

Semester 6

Core courses: Nutrition Counselling, Nutrition Management in Emergency and Disasters, Nutrition Information, Education and Communication, Policy Analysis for Food and Nutrition, Research Project II

Elective courses: Family Life Education, Sociology of Development, Agribusiness Skills II, Projects Appraisal, Monitoring and Evaluation

Career Opportunities

Graduates in this program are employed in various capacities in diverse institutions such as Government and private organizations in health care facilities, training gyms and fitness centers, food manufacturing companies, academic institutions. Graduates can work in private practice as a Nutritionists in a health food shop, technical or customer service role in a nutritional medicine company, Sales Representative in a nutritional medicine company and other specialist positions in the field of nutrition.

POSTGRADUATE PROGRAMMES

Master of Science in Human Nutrition

The aim of the programme is designed to train highly skilled postgraduates to be professionals in nutrition and related fields, who will be able to undertake advanced research and plan for the implementation of nutrition improvement programmes at all levels in the country for the alleviation of nutrition insecurity problems.

Semester 1

Core courses: Research Methods and Data Analysis, Nutritional Metabolism, Nutrition Epidemiology, Food and Nutrition Security, Maternal and Child Nutrition, Nutritional Biochemistry

Elective courses: Nutrition in Emergency, Food Chemistry and Analysis, Food Quality and Safety Management, Gender and Development

Semester 2

Core courses: Nutritional Anthropology, Community Nutritional Assessment, Therapeutic Nutrition, Nutrition Counselling and Advocacy, Public Health and Health Systems, Planning and management of nutrition programmes

Elective courses: Advanced Food Hygiene, Clinical Nutrition, Food Sensory Evaluation, Project Monitoring and Evaluation

Semesters 3 and 4: Dissertation

PROGRAMMES HOSTED BY THE DEPARTMENT OF AGRICULTURAL EXTENSION AND COMMUNITY DEVELOPMENT

www.coa.sua.ac.tz/extension

UNDERGRADUATE PROGRAMMES

Bachelor of Community Development

The aim of this programme is to produce competent Human Resource Officers with sound professional skills, knowledge and right attitude or changed mind-set to manage and/or facilitate the development process of communities efficiently.

Semester 1

Core Courses: Introductory Sociology, Introduction to Community Development, Basic Laws Related to Community Development, Agricultural Economics and Development, Computer Application

Elective Courses: Principles of Economics I, Introduction to Micro and Macro Economics, Introduction to Social Psychology, Agriculture and Rural Development, Introduction to Natural Resource Management, Theories, Principles and Contemporary issues in Development, Communication Skills

Semester 2

Core Courses: Extension Communication and Interpersonal Skills, Basic Statistics for Extension Professionals, Theories and Principles of Community Development, Principles of Administration and Management, Agribusiness Management

Elective Courses: Introduction to Agricultural Extension, Introductory Anthropology, Principles of Economics II, Communication Skills II, Child Care and Development

Semester 3

Core Courses: Sociology of Community Development, Cooperative Development and Entrepreneurship, Training and Facilitation methods for Community Development, Community Empowerment, Urban Rural Interface

Elective Courses: Agricultural Marketing Management, Agribusiness and Entrepreneurship Development
Extension Methods, Introduction to Social Research, Introduction to Gender & Development, Natural Resources Management, Livelihood Analysis

Semester 4

Core Courses: Extension Programme Planning and Evaluation, Agricultural Administration and Management, Adult Learning and Development, Promotion and Management of Community Organizations
Management of Natural Resources and the Environment

Elective Courses: Survey Research Methods, Public Policies, Co-operatives and Rural Development, Food and Nutrition Security

Semester 5

Core Courses: Research Project I, Community Development, Research Methodology and Proposal Development, Proposal Writing for Community Interventions, Community Governance, Community Interventions and Mobilization Techniques, Campaign, Advocacy and Lobbying

Elective Courses: Group Dynamics and Leadership, Communication Technology, Gender and Development, Agricultural Finance and Credit Management, Agribusiness Project Appraisal and Evaluation, Community Health and Health Promotion, Advocacy and Resource Mobilisation in Community

Semester 6

Core Courses: Sociology of Development, Emerging Issues in Community Development, Participatory Community Development Approaches, Community Conflicts and Management, Research Project II

Elective Courses: Human Resource Management, Family and Society, Social Impact Assessment, Poverty Analysis, Nutrition Counselling, Policy Analysis for Food and Nutrition

Career Opportunities

Graduates of this programme can work as Consultants, Community Development Facilitators, Community Development Officers, Development Planners, Field Animators, Social Science Researchers and Tutors in community development, rural development and social work institutions, Government institutions, Community Based Organizations (CBOs), Non-Governmental Organizations (NGOs), research institutions and private firms

Bachelor of Science in Applied Agricultural Extension

The aim of this programme is to produce competent, responsible and innovative strategic agricultural extension professionals and managers who will work at as extension agents, managers, administrators of agricultural extension systems, sub-systems, schemes and programmes designed to respond to the agricultural extension demands of African nations in the sub-region of SADC and other developing nations.

Semester 1

Core Courses: Introductory Sociology, Introduction to Animal Production and Health, Principles and Practices of Horticulture, Introduction to Agricultural Economics and Development, Computer Applications, Communication Skills I

Elective Courses: Agriculture and Rural Development, Principles, Theories and Contemporary Issues in Development, Genetics, Basic Mathematics, Introductory Geology and Soil Formation

Semester 2

Core Courses: Extension Communication and Interpersonal Skills, Introduction to Agricultural Extension Principles of Administration & Management, Introduction to Animal Nutrition Introduction to Agribusiness, Basic Statistics for Extension Professionals

Elective Courses: Introductory Anthropology, Introductory Entomology, Agricultural Botany, Communication Skills II

Semester 3

Core Courses: Rural Sociology, Extension Methods, Introduction to Social Research, Fundamentals of Soil Science, Agribusiness and Entrepreneurship Development

Elective Courses: Training for Development and Facilitation Methods, Vegetable Production, Introduction to Gender and Development, Agricultural Marketing Management, Applied Animal Nutrition

Semester 4

Core Courses: Introduction to Supervised Enterprise Project (SEP), Programme Planning and Evaluation, Agricultural Administration and Management, Adult Learning and Development, Principles of Annual Crop Production

Elective Courses: Food Storage and Handling, Plant Pathology, Principles of Fruit Production, Agricultural Price Analysis, Postharvest Physiology and Management

Semester 5

Core Courses: Supervised Enterprise Project (SEP) 1, Participatory Methodology, Group dynamics and Leadership, Analysis and interpretation of Data in Social Sciences, Gender and Agricultural Extension

Elective Courses: Soil Fertility and Plant Nutrition, Communication Technology, Methods of Adult Education, Small Ruminant Management, Poultry and Rabbit Production, Pig Production, Information and Communication, Management, Applied Entomology, Campaign, Advocacy and Lobbying

Semester 6

Core Courses: Supervised Enterprise Projects II, Community Development, Comparative Extension Systems, Sociology of Development, Value Chain Approach in Agriculture

Elective Courses: Perennial Crops, Dairy Cattle Management, Milk and Milk Products, Post-harvest Technologies of Industrial Crops, Social Impact Assessment

Career Opportunities

Graduates of this programme work as adult educators, trainers, organizers, facilitators, mediators, social engineers, counsellors, farm managers and consultants. Prospective employers include Government, Government institutions (MATIs and LITAs), Non-Governmental Organizations (NGOs), Community Based Organizations (CBOs), research institutions and private institutions.

POSTGRADUATE PROGRAMMES**MSc. in Agricultural Extension**

The aim of this programme is to develop the required human resource pool for catalysing utilization of knowledge and technology for increasing agricultural production and productivity through enhancing the performance of agricultural extension systems.

Semester 1

Core Courses: Gender and Development, Extension Theory and Practice, Adult and Non-formal Education, Administration and Management, Scientific Writing and Presentation Skills, Sociology of Development, Innovation Systems in Agriculture, Research Innovations and Commercialization

Elective Courses: Indigenous Knowledge, Genetic Resources and Intellectual Property, Participatory Approaches in Development, Project Design and Management, Mobilization for Change,

Semester 2

Core Courses: Quantitative Methods & Statistical Applications, Qualitative Methods, Management of Information and Communication Systems, Comparative Extension Systems, Extension Programme Planning, Graduate Research Seminars, Agribusiness Project Appraisal and Evaluation

Elective Courses: Policy Formulation and Analysis, Entrepreneurship Development in Agribusiness, Adult Learning and Development, Monitoring and Evaluation, Communication for Development in Agriculture

Semesters 3 and 4: MSc Proposal Development, MSc. Dissertation

MSc. Agricultural Statistics

The programme is offered in collaboration with the Eastern Africa Statistical Training Centre (EASTC).

The programme enable students to become competent Agricultural Statisticians in the agricultural, social, economic and socio-economic aspects of a national statistical system.

At the end of study, the prospective Agricultural Statisticians will have the following competences: assess statistically agriculture, livestock and fisheries sector issues and their impact on the economy of a nation; apply knowledge and skills as well as understanding of complex statistical issues of development problems, which concern policy makers and decision makers in Agricultural Statistics. Apply statistical and analytical techniques in statistics production. Employ agricultural statistics in assessing food security aspects of society. Employ economic statistics in assessing economic performance. Apply socio-economic statistics for assessing cross-cutting issues in society. Manage Statistical Office. Conduct statistical research addressing food production issues of a nation.



PhD. Agricultural and Rural Innovation (PhD ARI) by Coursework and Research

The aim of this programme is to develop high-level professionals capable of catalyzing agricultural and rural development and improving value chain efficiency through innovations generated by knowledge, science and technology.

Semester 1

Core Courses: Participatory Methods and Action Research, Agriculture and Rural Development in Africa, Innovation Systems for Agricultural and Rural Development, Quantitative Research and Statistical Applications, Qualitative Research, Personal Mastery and Soft Skills,

Elective Courses: Communication and Leadership for Development, Peer Learning and Research Mentoring

Semester 2

Core Courses: Agricultural Services Delivery and Entrepreneurship, Organisational and Institutional Development for Rural Transformation, Application of Innovation Systems in Agricultural and Rural Development, Knowledge Management and Communication, Participatory Approaches and Development, Scientific Writing and Publishing

Elective Courses: Research Design, Entrepreneurship and Business Management

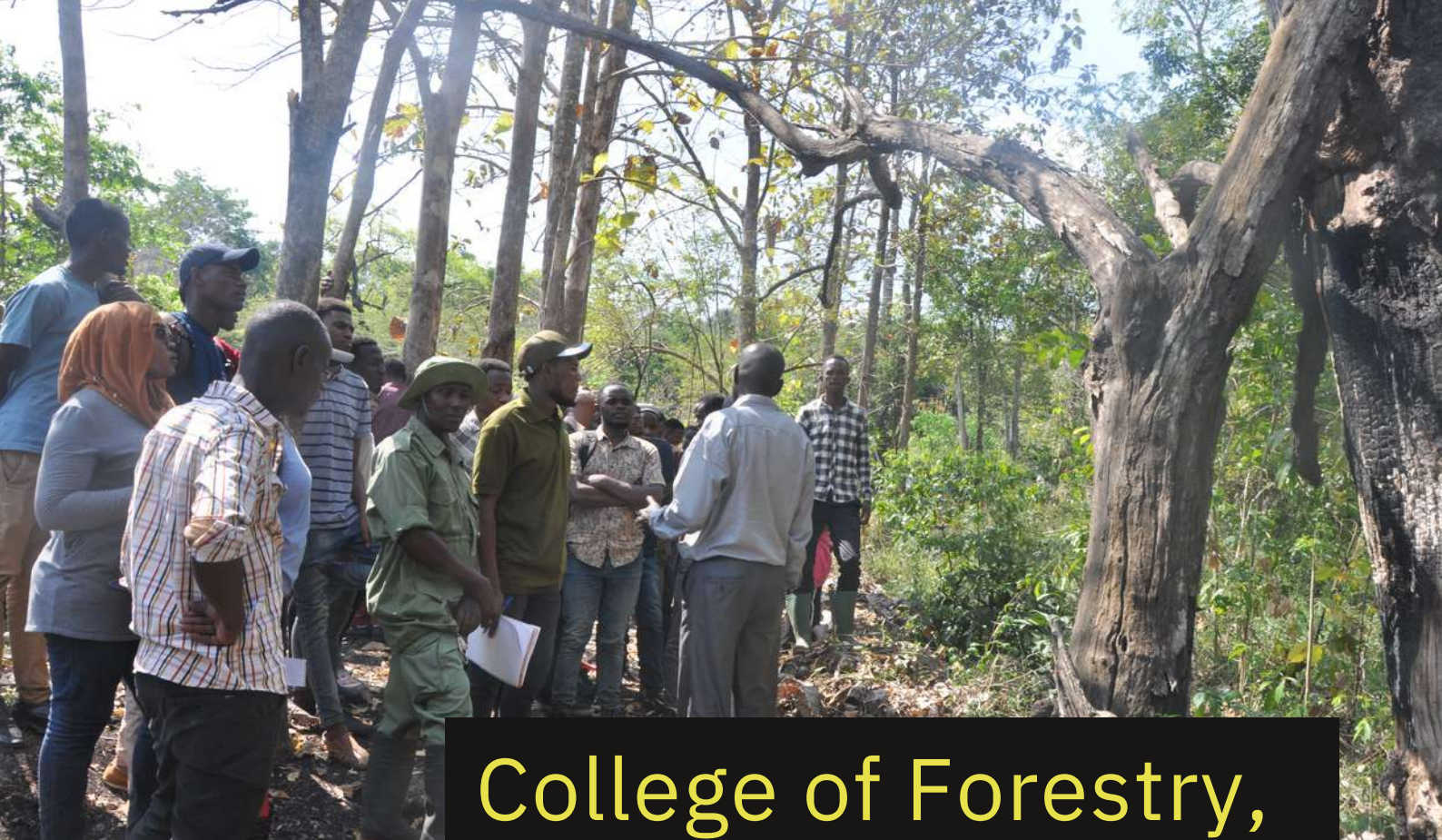
Semesters 3, 4,5,6,7 and 8: PhD Proposal Development, Dissertation



PhD. Agricultural Education and Extension (by research only)

The programme is designed to prepare researchers, planners, managers and trainers in higher learning institutions in the field of agricultural education and extension. The programme is by research only culminating into thesis.





College of Forestry, Wildlife and Tourism

It gives me great pleasure and honour to welcome you all to the College of Forestry Wildlife and Tourism (CFWT) at Sokoine University of Agriculture.

The college provides quality education, research, outreach and consultancy services in forestry, wildlife, tourism, natural resources, recreation, hospitality and related fields.

The college offers both undergraduate and postgraduate training in the areas of forestry sciences, wildlife management, tourism and recreation with students coming from all over the country, other African countries and beyond the African continent.

The College hosts Olmotonyi Training Forests in Arusha, Mazumbai Training Forest in Lushoto - Tanga, Ifinga Training Forest in Madaba - Songea, Botanical garden at Edward Moringe Campus, and Vuyisile Mini Furniture Factory at Solomon Mahlangu Campus.

Students and all our clients benefit from education and expertise rooted in science and demand-driven curricula that have been built around an interdisciplinary and hands-on approach from our teaching and supporting staff who value academic excellence and diversity. CFWT Team is always active and ready to guide you and devote time to provide quality education that will enable you to realise your full potential in your life career.

I am confident that if you live with discipline, you will graduate from this College and University with hope, optimism and attain satisfaction in life. Welcome and explore all undergraduate programmes and courses offered at CFWT in this prospectus and our website at <https://www.cfw.t.sua.ac.tz>



Prof. Suzana Agustino

Principal, College of Forestry, Wildlife and Tourism

Bachelor of Science in Forestry

This programme is hosted at the College level. The aim of the programme is to develop students' knowledge, competence and ability to apply the principles of forestry in terms of science, research and delivery of advisory services and practice for sustainable development.

Semester 1

Core Courses: Introduction to Resource Economics, Fundamentals of Forest Engineering, Introduction to Surveying and Mapping, Wood Chemistry, Introduction to Soil Science, Wood Anatomy and Quality

Elective Courses: Communication Skills I, Tourism, Environment and Development, Workshop Technology

Semester 2

Core Courses: Forest Botany, Fundamentals of Ecology, Computer Applications, Basic Statistics in Resources Conservation and Management, Communication Skills II

Elective Courses: Integrated Ecosystems Assessment, Introduction to Agribusiness, Principles, Theories and Contemporary Issues of Development

Semester 3

Core Courses: Silviculture, Tree Improvement, Logging and Ergonomics, Resource Economics, Forest Biometry, Wildlife Management and Beekeeping

Elective Courses: Ecological Impact Assessment and Environmental planning, Communication Skills I, Land Surveying

Semester 4

Core Courses: Principles of Remote Sensing and GIS, Soil Surveying, Classification & Land Evaluation, Forest Resource Assessment, Wood Properties and Utilization, Sawmilling, Agroforestry

Elective Courses: Non-timber Forest Products, Natural Resource and Environmental Economics, Climate Change

Semester 5

Core Courses: Forest Protection, Integrated Watershed Management, Timber Transportation Planning and Roads, Resource Policy, Legislation and Land Use Economics, Forest Management Planning I, Research Project I: Research Methods and Proposal development

Elective Courses: Forest Soil Management, Biodiversity Measuring and Monitoring, Entrepreneurship Skills and Development, Communication Skills I.

Semester 6

Core Courses: Extension Education in Nature Conservation, Forest Management Planning II, Wood Based Materials, Principles of Administration & Management, Research Project II

Elective Courses: Introductory Marketing and Financial Accounting, Ecological Restoration, Human Resource Management

Career Opportunities

Graduates from this degree programme can work as Forest and Conservation Officers, Research Technicians, Project Officers, Ecologists, Agroforestry Officers, Forestry Extension Officers. Prospective employers include research institutions, local and international NGO's, development projects and programs, government institutions, private forestry enterprises, agricultural enterprises.



PROGRAMMES HOSTED BY THE DEPARTMENT OF TOURISM AND RECREATION

www.cfw.t.sua.ac.tz/tourism

UNDERGRADUATE PROGRAMMES

Bachelor of Tourism Management

The overall aim of the programme is to develop graduates with positive attitudes, ethical values, professional knowledge and skills for managing and promoting tourism industries.

Semester 1

Core Courses: Introduction to Tourism, English Language and Culture, Tourism, Environment and Development, Introduction to Hospitality Services, Introduction to Animal Kingdom

Elective Courses: Introduction to French Language and Culture, Introduction to Spanish Language, Theories, Principles and Contemporary Issues in Development, Communication Skills I

Semester 2

Core Courses: Tourism Products Development and Management, Economics of Tourism, English Language and Culture II, First Aid and Disaster Management, Sustainable Tourism Development

Elective Courses: French Language and Culture, Spanish Language and Culture, Health Management in Tourism, Principles of Accounting and Finance, Principles of Administration and Management

Semester 3

Core Courses: Tourism Marketing, Tourism Forecasting, Tourism Policies and Legislation, Front Office Operations, Leisure and Recreation Management

Elective Courses: Business Laws and Ethics for Tourism, Occupational Health Hazards and Safety Practices, Socio Cultural Systems of Tourism, Morph syntax and Semantics, Morph syntax and Semantic, English Language of Tourism

Semester 4

Core Courses: Museum, Monuments and Heritage Tourism, Conventions/Meetings Planning and Management, Travel Agencies, Tour Operation and Air Ticketing, Customer Care and Interpersonal Skills, Community – based Tourism

Elective Courses: Business Communication Skills, Food Production, Introduction to Wildlife Ecology, Competence-based French, Competence-based Spanish, Environmental Impact Assessment and Management, One must be elected with any other course from the list of electives

Semester 5

Core Courses: Tour Guiding and Interpretation Skills, Transport and Travel Management, Travel and Tourism Geography, Research Methods in Tourism and Recreation Management, Revenue Management in the Tourism, Industry, Travel Laws and Regulations

Elective Courses: Food and Beverage Management, French Language of Tourism, Spanish Language of Tourism, Meal Planning and Management, Entrepreneurship and Development, One must be elected with any other course from the list of electives

Semester 6

Core Courses: Introduction to Coastal Marine Ecosystem, Computer Applications in Hospitality Industry, Human Resource Management, Wildlife Tourism and Eco-tourism, Tourism Promotion, Research Methods in Tourism and Recreation Management II

Elective Courses: Catering Restaurant and Food Management, Management Information Systems, French for Tour Guiding, Spanish for Tour Guiding, Automobiles Operations Principles, Principles of Administration and Management

Career Opportunities

Graduates of this degree programme can work as tutors, instructors, lecturers in higher education institutions, tourism park wardens; Airport/Airline Operations Managers, Tourist Information Centre Managers, Tour Operation Managers, Travel Agency Managers, meeting, convention, and event planners, flight attendants, front desk clerk/receptionist, hotel or resort managers, housekeeper, advertising, promotions, and marketing managers, tour guides, interpreters or translators in French or Spanish, tourism consultants. Prospective employers include Travel and Tour Operation Companies, Airlines, Hotels, Government and NGOs, Education and Research Institutions.

PROGRAMMES HOSTED BY THE DEPARTMENT OF WILDLIFE MANAGEMENT

www.cfw.tz/sua.ac.tz/wildlife

UNDERGRADUATE PROGRAMMES

Bachelor of Science in Wildlife Management

This programme produce wildlife experts with technical, analytical, managerial and entrepreneurial skills in wildlife enterprise and related industries for sustainable development.

Semester 1

Core Courses: Animal Kingdom Core, Introductory Animal Genetics, Vertebrate Anatomy, Introduction to Tourism, Introduction to Resource Economics

Elective Courses: Tourism, Environment and Development Elective, General Histology, Communication Skills I, Introduction to Soil Science

Semester 2

Core Courses: Fundamentals of Ecology, Animal Physiology, Forest Botany, Computer Applications, Communication Skills II

Elective Courses: Principles of Accounting and Finance, Economics of Tourism, First Aid and Emergency Care,

Semester 3

Core Courses: Mammology, Ornithology, Herpetology, Ballistics, Biostatistics, Range Ecology and Management, Conservation of Wetlands, Ichthyology

Elective Courses: Wildlife Nutrition, Introduction to Social Research, Tourism Marketing, Ecological Impact Assessment and Planning

Semester 4

Core Courses: Principles and Techniques of Wildlife Management, Wildlife Population Ecology, Principles of Remote Sensing and GIS, Wildlife Pathogens and Diseases, Wildlife Entomology and Parasitology

Elective Courses: Customer Care and Interpersonal Skills, Climate Change, Natural Resource and Environmental Economics

Semester 5

Core Courses: Wildlife Policies and Legislation, Participatory Wildlife Conservation, Conservation Education and Extension, Criminology and Wildlife Law Enforcement, Biodiversity Conservation and Monitoring, Research Project 1: research methods and proposal development

Elective Courses: Tour Guiding and Interpretation Techniques, Integrated Watershed Management, Environmental Management for Tourism

Semester 6

Core Courses: Wildlife-Based Tourism & Eco-tourism, Wildlife Protected Area Planning and infrastructure, Wildlife Utilisation, Automobile Operating Principles, Research Project II: Research Methods and Proposal Development

Elective Courses: Introduction to Coastal and Marine Ecosystems, Entrepreneurship Skills and Development, Principles of Administration and Management, Human Resource Management

Career Opportunities

Graduates of this programme are able to conduct basic and applied wildlife research, extension and consultancy, address environmental and conservation issues. They have the ability to Plan, design and manage wildlife enterprises and industries for sustainable wildlife practices in a multidisciplinary environment.

POSTGRADUATE PROGRAMMES

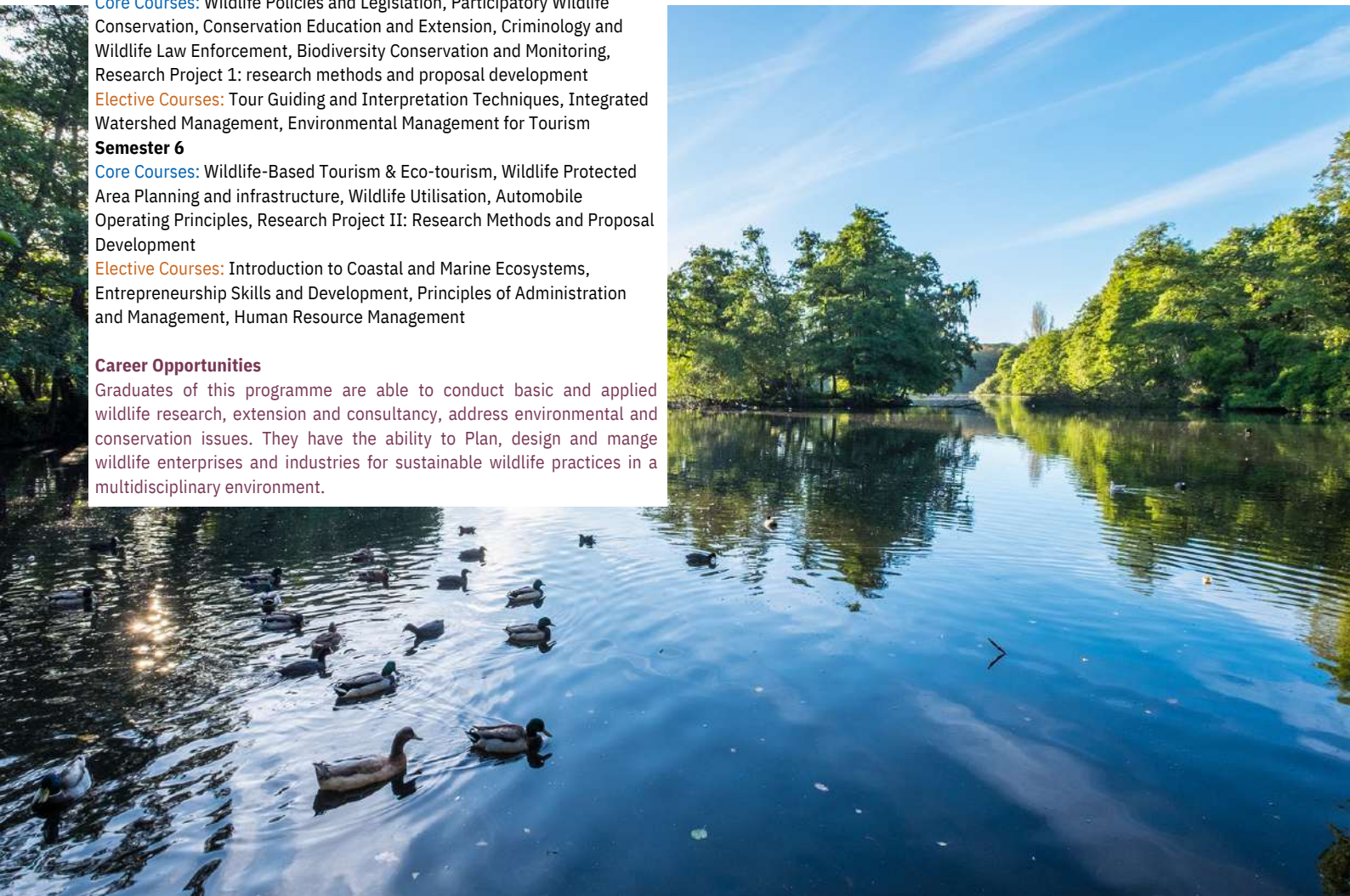
MSc. Wildlife Management and Conservation

The programme seeks to provide advanced training in various aspects of wildlife management and conservation; impart graduates with entrepreneurial skills required to work in various wildlife and allied sectors including self-employment; provide conceptual understanding that enables graduates to deal with challenging issues in the field of wildlife conservation, make sound judgments, and communicate their conclusions to specialist and non-specialist audiences; impart self-direction and originality in solving conservation problems, and act autonomously in planning and implementing tasks; inspire students to be researchers and practitioners of quality and creativity in the field of wildlife conservation; and provide tools for evaluation of different management and development options in the world of trade-offs

Semesters 1 and 2

Core Course: Biostatistics, Research Methods, Planning and Management, Wildlife Resource Assessment, Wildlife Protected Area Management, Wildlife Economics and Entrepreneurship, Capture, Care and Transportation of Wildlife, Wildlife Ecology and Conservation, Wildlife Extension, Communication and Community Development, Ecotourism Planning and Management

Elective Courses: Wildlife Policies and Jurisprudence, Animal Behaviour, Biodiversity Conservation, Sustainable Utilization of Wildlife in the Tropics, Wildlife Population and Ecosystem Health, Plant Community Ecology, Animal Kingdom, Conservation Genetics, Wetlands Conservation, Social Ecology of Natural Resources, Pest Management, Wildlife Diseases and Diagnostics, Risk Assessment and Modelling, Wildlife Ranching and Farming, Special Study

Semesters 3 and 4: Dissertation

PROGRAMMES HOSTED BY THE DEPARTMENT OF FORESTRY TECHNOLOGY AND WOOD SCIENCES

www.cfw.tz.sua.ac.tz/wood

UNDERGRADUATE PROGRAMMES

Bachelor of Science in Wood Technologies and Value Addition

This programme produce graduates with broad technical knowledge of wood processing and hands on skills and professionalism in technical drawing, designing and production of furniture and other wood structures.

Semester 1

Core Courses: Wood Anatomy and Quality, Introductory Statistics, Communication Skills I, Computer Applications, Workshop technology, Wood Chemistry

Elective Courses: Principles, Theories and Contemporary Issues of Development, Biomass Energy Production, Use and Conservation, Introduction to Resource Economics

Semester 2

Core Courses: Seasoning of Wood and Wood products, Wooden Building Construction, Wood Products and Climate Change, Woodworking, Non Wood Materials and Products, Industrial Attachment I

Elective Courses: Wood floor making, Marquetry and Parquetry, Work study and ergonomics , Principles of Remote sensing and GIS

Semester 3

Core Courses: Wood properties and Utilization, Industrial Innovations, Quality Management, Antique Restoration and Repair, Wood Degradation and Preservation, Forest and Wood Products Certification

Elective Courses: Ecological Impact Assessment and Environmental Planning, Project Planning and Management, Communication skills II

Semester 4

Core Courses: Wood Finishing and Coating Technology, Furniture Design and Manufacture, Business, Finance, Marketing and Law, Sawmilling, Computer Aided Design, Industrial Attachment II

Elective Courses: Prefabricated Wooden Houses, Consulting, Non-Timber Forest Products

Semester 5

Core Courses: Industrial Economics, Wood Processing Value Analysis, Wood Based Materials, Principles of Administration and Management, Wood Resources Inventory, Research Project I

Elective Courses: Landscaping and Gardening, Timber harvesting and Transportation planning, Fund Raising Techniques

Semester 6

Core Courses: Production Management, Estimating and Tendering, Wood Modification, Research Project II, Industrial Attachment III,

Elective Courses: Business Incubation, Leadership and Governance, Job Market Preparation Skills, Entrepreneurship skills and Development

Career Opportunities

The graduates of this programme are Wood innovators, technologists, planners and processors managers in wood-based industries. They can work as Practitioners and wood technologists capable of designing safe working practices in workshop environment and woodworking machinery. They are entrepreneurs and employable in diverse wood industry and machinery

POSTGRADUATE PROGRAMMES

Msc. Forest Products and Technology**Semester 1**

Core Courses: Applied Statistics, Research Design and Presentation Skills, Advanced Wood Anatomy and Chemistry, Wood Preservation and Modified Wood, Advanced Physics, Mechanics and Rheology of Wood

Elective Courses: Forest Industries Management, Natural Resource Economics and Entrepreneurship, Biomass Harvesting and Conversion Technologies, Ecosystem Valuation and Environmental Accounting, Gender, Ecosystem Management and Climate Change

Semester 2

Core Courses: Pulp and Paper Technology, Forest Industries Technologies, Technology of Wood Based Materials, Research Innovations Management and Commercialization, Research and Dissertation

Elective Courses: Wood Machining, Sustainable Utilization of Wildlife, Design of Structures, Environmental and Social Impact Assessment

MSc. Forest Engineering

The programme is aimed to develop managers, researchers, trainers and entrepreneurs in the forest engineering sphere with innovative knowledge, skills and values in the management of forest engineering operations in an environment of increasing public scrutiny and environmental concern; with an understanding of the processes and challenges related to the efficient and environmentally acceptability in order to enhance sustainable exploitation of the forest resource within the engineering principles and quality product.

Semester 1

Core Courses: Biostatistics, Research Methods, Planning and Management, Timber Harvesting Systems

Elective Courses: Machine Operating Principles, Design of structures, Forest Engineering Quantitative Methods, Natural Resources Economics

Semester 2

Core Courses: Advanced Forest Road Engineering, Applied Forest Work Studies and Ergonomics, Forest Operations Planning

Elective Courses: Forest Resources Management, Advanced GIS and Remote Sensing Applications in Forestry, Computer Applications in the Management of Natural Resources

Semesters 3 and 4: Dissertation

Master of Science in Management of Natural Resources for Sustainable Agriculture

The overall objective of the MSc. MNRSA programme is to produce graduates who can develop a holistic orientation and awareness of the complex social, economic and ecological factors involved in natural resource management and agricultural production systems.

Semester 1

Core Courses: Applied Statistics, Research Methods, Management of Natural Resources in the Tropics, Resource and Environmental Economics, Tropical production systems and Sustainable Agriculture, Seminar

Elective Courses: Entrepreneurship in Natural Resources, Policy Frameworks and Conventions, Marketing, Applied Microeconomic Analysis, Biological Diversity- Assessment and Monitoring, Trans-boundary Natural Resources Management and Climate Change, Biosecurity and Welfare in Aquaculture, Aquatic Resources Management, Crop Species Diversity, Livestock Production Systems, Rangeland Resources Management, Farming System and Technology Integration

Semester 2

Core Courses: Resource assessment, Ecology and Tropical Biology, Applied Social Anthropology, Project Appraisal, Monitoring and Evaluation, Computer Applications in Management of Natural Resources, Indigenous Knowledge, Genetic Resources and Intellectual Property

Elective Courses: Emerging Cross-cutting Issues in Natural Resources Management, Environmental Impact Assessment, Economic Growth and Development, Trade and International Cooperation, Conservation and Development Policies and Legislation, Political Ecology of Natural Resources conservation, Agricultural Meteorology, Field Crop Production, Management of Pastoral Rangelands

PhD in Forest Sciences

The PhD Forest Sciences programme comprises one year of coursework at SUA and three years of research, thesis writing and defence



PROGRAMMES HOSTED BY THE DEPARTMENT OF ECOSYSTEMS AND CONSERVATION

<https://www.cfw.tz.sua.ac.tz/ecosystems>

POSTGRADUATE PROGRAMMES

Master of Science in Forestry

The aim of this programme is to prepare and produce professional foresters with a high level of competency in planning and sustainable management of forest resources.

Semester 1

Core Courses: Statistics, Research Methods in Ecosystems Science, Silviculture of plantations and natural forests, Agroforestry, Tropical Vegetation and Plant Taxonomy, Forest Landscapes Restoration, Timber Harvesting Systems

Elective Courses: Advanced GIS and Remote Sensing: Applications in Forestry, Hydrology and Agroecological Modelling, Biodiversity monitoring and management, Wildlife Ecology and Conservation, Natural Resource Economics, Forest biotechnology, Advanced Forest Roads Engineering

Semester 2

Core Courses: Advanced Forest Resource Assessment, Forest Health Management, Ecological Risk Assessment and Environment Planning, Resource and Environmental Economics, Wood Preservation and Modified Wood, Forest Soils and Water Management

Elective Courses: Indigenous knowledge, genetic resources and intellectual property, Project Appraisal, Monitoring and Evaluation, Management of Natural Resources in the Tropics, Climate Change and Forestry, Entrepreneurship in Natural Resource Management, Non -Timber Forest Products

Semesters 3 and 4: MSc. Research Proposal Development, MSc. Dissertation

Master of Science in Ecosystems Science and Management

The aim of this programme is to impart a high-level competence to professionals involved in ecosystems science and management for better ecosystem research, management, conservation and sustainable development.

Semester 1

Core Courses: Statistics, Research Methods in Ecosystems Science, Landscape Ecology, Terrestrial Ecosystems, Aquatic Ecosystems and Stream Ecology, Ecosystem Valuation and Environmental Accounting

Elective Courses: Ecosystem Health Management, Weather and Climate, Gender, Ecosystem Management and Climate Change, Ecosystem Restoration, Governance and Management of Ecosystem Services, Ecosystem Modelling

Semester 2

Core Courses: Ecosystem Dynamics and Climate Change, Assessment and Monitoring of Biological Diversity, Ecological Risk Assessment and Environment Planning, Assessment and Mapping of Ecosystem Services, Wetlands Ecology and Management

Elective Courses: Indigenous Knowledge, Genetic Resources and Intellectual Property, Soil Fertility and Plant Nutrition, Tropical Vegetation and Plant Ecology, Taxonomy of Tropical Forest Trees and Shrubs, Soil and Water Conservation, Principles of Land Use Planning, Wildlife Population and Ecosystem Health

Semesters 3 and 4: MSc Research Proposal Development, MSc Dissertation

PROGRAMMES HOSTED BY THE DEPARTMENT OF FOREST RESOURCES ASSESSMENT AND MANAGEMENT

<https://www.cfw.tz.sua.ac.tz/forestresources>

POSTGRADUATE PROGRAMMES

Master of Science in Forest Resources Assessment and Management

The aim of this programme is to equip students with innovative knowledge, skills and values in integrated forest resource assessment and management in order to enhance understanding of the current forest resources management and environmental issues.

Semester 1

Core courses: Applied Statistics, Research Methods, Advanced Forest Resources Assessment, Perspectives in Forest Governance, Management of Natural Resources in the Tropics,

Elective courses: Natural Resources and Environmental Management, Demography and Development, Entrepreneurship in Natural Resources, Natural Resource Economics, Tropical Vegetation and Plant Taxonomy,

Semester 2

Core courses: Environmental and Social Impact Assessment, Advanced GIS and Remote Sensing: Applications in Forestry, Climate Change and Forestry, Indigenous Knowledge, Genetic Resources and Intellectual Property, Forest Resource Management, Research proposal development

Elective Courses: Project Appraisal, Monitoring and Evaluation, Computer Applications in the Management of Natural Resources, Forestry in Rural Development, Sustainable Utilization of Wildlife, Non -Timber Forest Products

Semesters 3 and 4

MSc. Research Proposal Development, MSc. Dissertation

Master of Science in Agroforestry

The aim of this programme is to train Agroforestry professionals to serve in Agroforestry promotion, management, training, research, extension and consultancy services.

Semester 1

Core Courses: Applied Statistics, Research Methods, Agroforestry Concepts, Systems & Technologies, Woody Perennials Selection & Evaluation, Component Interactions in Agroforestry Systems, Productivity, Improvement & Sustainability in Agroforestry Systems

Elective Courses: Agroforestry Practices Dissemination & Extension, Plant Propagation, Agroforestry and Poverty Reduction, Pest and Diseases Management in Agroforestry

Semester 2

Core Courses: Soil and Water Conservation, Economics of Agroforestry, Agroforestry and Ecological Restoration, Resources Characterization and Management Options in Agroforestry, Indigenous Knowledge, Genetic Resources and Intellectual Property

Elective Courses: Rangeland Resources Management, Advanced Soil-Water-Plant Relationships, Principles of Land Use Planning, Soil Fertility Management

Semesters 3 and 4

Core Courses: MSc Research Proposal Development, MSc Dissertation

PROGRAMMES HOSTED BY THE DEPARTMENT OF FOREST AND ENVIRONMENTAL ECONOMICS

<https://www.cfwt.sua.ac.tz/economics>

POSTGRADUATE PROGRAMMES

Postgraduate Diploma in Result-based Monitoring and Evaluation

The main objective of this Postgraduate Diploma is to equip students with advanced knowledge, skills, and experience in monitoring and evaluation of various projects in order to enhance sustainable development and management of the environment and natural resources in the Country.

Semester I

Core Courses: Concepts of Monitoring and Evaluation, Types of Monitoring and Evaluations, Systems Approach to Monitoring and Evaluation, Project Designs, Logical Framework Analysis and its Role in Monitoring and Evaluation, Outcome Mapping

Elective Courses: Development Finance, Poverty Analysis, Marketing, Computer Applications in the Management of Natural Resources

Master of Science in Environmental and Natural Resources Economics

The overall objective of the Programme is to equip students with innovative knowledge and skills in order to enhance understanding of current environmental and natural resource economic issues

Semester 1

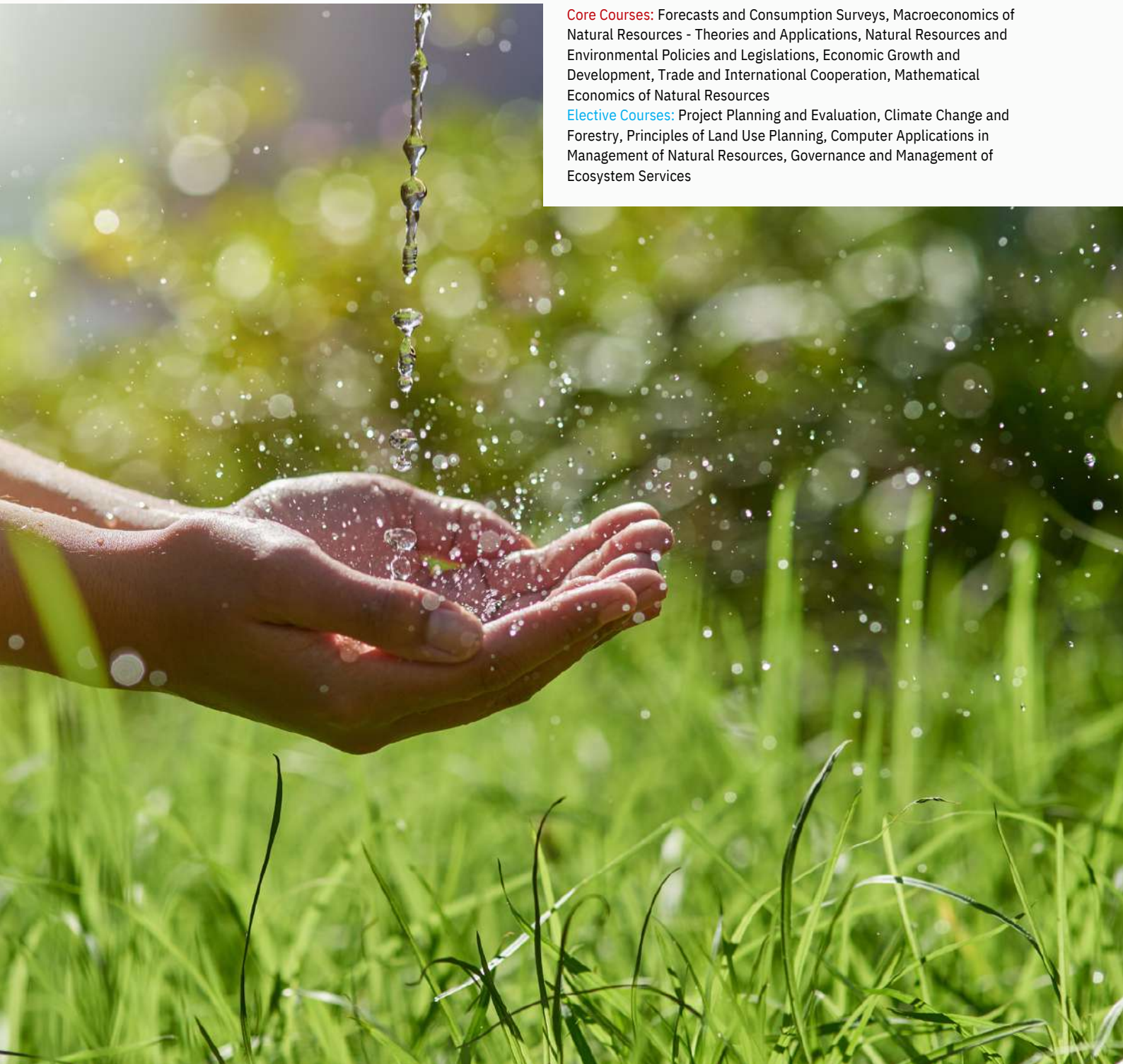
Core Courses: Applied Statistics, Research Methods, Econometrics in Natural Resources, Environmental Economics, Natural Resource Economics, Microeconomics of Natural Resources - Theories and Applications, Environmental and Social Impact Assessments

Elective Courses: Entrepreneurship in Natural Resources, Advanced Marketing in Natural Resources, Applied Production Analysis in Natural Resource Management, Perspectives in Forest Governance, Bio-economy

Semester 2

Core Courses: Forecasts and Consumption Surveys, Macroeconomics of Natural Resources - Theories and Applications, Natural Resources and Environmental Policies and Legislations, Economic Growth and Development, Trade and International Cooperation, Mathematical Economics of Natural Resources

Elective Courses: Project Planning and Evaluation, Climate Change and Forestry, Principles of Land Use Planning, Computer Applications in Management of Natural Resources, Governance and Management of Ecosystem Services





College of Veterinary Medicine and Biomedical Sciences

Welcome to the College of Veterinary Medicine and Biomedical Sciences. The College is committed to advance cutting-edge knowledge and skills in animal health, biomedical sciences and public welfare through training, research, outreach and community engagement. We envision becoming a centre of excellence in learning and knowledge creation focusing on the interface of animal and human health and the environment to advance society.

In fulfilling our mission, we cherish, advocate and promote academic excellence, professional integrity, academic freedom, Entrepreneurial and innovative spirit, efficiency, effectiveness, transparency, accountability and high standard of ethics, gender equality and social justice.

The College has five Departments namely: Veterinary Anatomy and Pathology; Veterinary Physiology, Biochemistry and Pharmacology; Veterinary Microbiology, Parasitology and Biotechnology; Veterinary Medicine and Public Health; and Veterinary Surgery and Theriogenology. In addition, CVMBS has a Science, Technology and Innovations Park (STI) to advance innovations in biomedical sciences. Other College Units include: Referral Teaching Animal Hospital, Animal Research Unit, Laboratory Animal Unit, Small Animal Kennels and Field Stations.

The college offers 21 Master degrees and PhD in Veterinary and Biomedical Sciences, two-degree programmes namely Bachelor of Veterinary Medicine (BVM) and Bachelor of Science in Biotechnology and Laboratory Sciences. It also offers two non-degree programmes namely Diploma in Tropical Animal Health and Production and Diploma in Laboratory Technology.

Visit www.cvmbs.sua.ac.tz for more information about college, departments, events, research projects and staff profiles.



Prof. Elliot Chikula Phiri

Principal, College of Veterinary Medicine and Biomedical Sciences

UNDERGRADUATE PROGRAMMES

Bachelor of Veterinary Medicine (BVM)

The program aims to provide opportunities for students to develop and acquire knowledge, skills and attitudes to become competent veterinarians who will contribute to the development of the livestock industry, public health sector, biomedical research and improvement of living standards of the people of Tanzania and of the world in general.

Semester 1

Core courses: Veterinary Gross Anatomy I, Veterinary Gross Anatomy II, Developmental Anatomy, Cytology and General Histology, Biochemistry I, Biochemistry II

Elective courses: Introduction to Range Management, Histotechnology, Principles, Theories and Contemporary Issues of Development, Communication Skills I

Semester 2

Core courses: Systemic Histology, Veterinary Physiology I, Veterinary Physiology II, Introductory Statistics, Introduction to Animal Health Management, Ethology and welfare

Elective courses: Computer Applications, Introductory Animal Genetics, Laboratory Instrumentation

Semester 3

Core courses: Microbiology, Parasitology I, Veterinary Virology, Parasitology II, Applied Animal Nutrition

Biometry, Professional seminars/Conferences

Elective courses: Introduction to Gender and Development, Introduction to Agribusiness, Communication Skills I

Semester 4

Core courses: Immunology, Biorisk Management, General Pathology, Professional seminars/Conferences, Farm Structures and Animal Housing

Elective Courses: Molecular Biology, Principles of Animal Breeding, Laboratory Animal Science

Semester 5

Core courses: Systemic Pathology I, Systemic Pathology II, Pharmacology and Toxicology I, Pharmacology and Toxicology II, Production Animal Medicine I, Professional seminars/Conferences

Elective Courses: Animal Production I, Introduction to Ecology and Wildlife Management, Pastoralism, Human-Environmental Interactions and Indigenous Knowledge, Communication Skills I

Semester 6

Core courses: Veterinary Epidemiology and risk analysis, Anaesthesiology and Principles of Surgery, Veterinary Surgery I, Theriogenology I, Diagnostic Imaging, Avian Medicine, Professional seminars/Conferences

Elective Courses: Animal Production II, Draught Animal Management and non-conventional Animal Farming, Global Health

Semester 7

Core courses: Production Animal Medicine II, Veterinary Public Health I, Veterinary Surgery II, Theriogenology II, Clinical Pathology, Professional seminars/Conferences, Introduction to Aquaculture, Forensic Science

Elective Courses: Cell and Tissue Culture Techniques, Extension Methods, Communication Skills I

Semester 8

Core courses: Professional seminars/Conferences, Research Project I, Veterinary Surgery III, Theriogenology III, Companion Animal Medicine, Veterinary Public Health II, Veterinary Economics

Elective Courses: Principles of Administration and Management, Principles of Accounting, Nucleic Acid Techniques

Semester 9

Core courses: Research Project II, Clinical Rotation (Pathology), Clinical Rotation (Surgery), Clinical Rotation (Theriogenology), Clinical Rotation (Veterinary Practice and Herd Health Management), Veterinary Jurisprudence, Ethics and Practice, Wildlife and Aquatic Health, Professional seminars/Conferences

Elective Courses: One Health Approaches and Practices, Agribusiness and Entrepreneurship, development, Human Resource Management

Semester 10

Core courses: Field Attachment

Career Opportunities

Graduates of this programme are registered as veterinarians by Tanzania Veterinary Council (VCT). They work as Veterinary Surgeons, Animal Health Field Officers, Veterinary Facility Managers, Animal and Medical Scientists, Animal and Medical Researchers, Animal Health Advisors.

Bachelor of Science in Biotechnology and Laboratory Sciences

This programme produce graduates who will be able to meet the demand of the public and private sectors involved in provision of health services as well as biotechnological research and development. Such institutions may include but not limited to industries dealing with basic science and applications health, agriculture, forensics, pharmaceuticals, environment management and food industries

Semester 1

Core courses: Laboratory instrumentation, General Biochemistry, Principles of Laboratory Science and Good Laboratory Practices, Concepts and Ethics in Biotechnology, Cell Biology, Human and Comparative Anatomy

Elective Courses: Introductions to Gender and Development, Communication Skills I, Introduction to Food Science, Principles, Theories and Contemporary Issues of Development

Semester 2

Core courses: Molecular Biology, General Microbiology, Introductory Statistics, Human and Comparative Physiology, General histology

Elective Courses: Histotechnology, Diagnostic Imaging Techniques, Computer Applications

Semester 3

Core courses: Cell and Tissue Culture Techniques, Nucleic Acids Techniques, Biorisk Management, General Parasitology and Entomology, Phlebotomy and clinical haematology I, Ethics for Medical Laboratory Sciences

Elective Courses: Introduction to Pharmacology, Environmental Microbiology, Communication Skills I, Chemistry for Life Sciences

Semester 4

Core courses: Clinical biochemistry, General Pathology, Diagnostic Microbiology and Virology, Diagnostic parasitology, Phlebotomy and Clinical Haematology II,

Elective Courses: Food Storage and Handling, Introduction to Agribusiness, Toxicology

Semester 5

Core courses: Research Project I Research Methods and Proposal, Diagnostic Pathology, Introductory Epidemiology, Genetic Engineering, Immunobiology and Immunodiagnosics

Elective Courses: Bioprocess and Industrial Biotechnology, Communication Skills I, Animal Biotechnology, Laboratory Animal Science, Agribusiness and Entrepreneurship Development

Semester 6

Core courses: Research Project II, Laboratory rotation: Immunology, Laboratory rotation: Haematology, Laboratory rotation: microbiology virology and parasitology, Bioinformatics

Elective Courses: Public Health and Risk Assessment, Forensic Science, Principles of Accounting

Career Opportunities

Graduates of this degree programme work as Medical and Animal Laboratory Technologists, Biomedical Researchers and Consultants, Molecular Biologists, Laboratory Managers and Laboratory Technical Advisors

Diploma in Laboratory Technology

The programme is aimed at producing competent technicians who will apply basic knowledge and skills in the field of Biomedical Science and Laboratory Technology.

Semester 1

Core courses: Laboratory Instrumentation, Basic Principles of Laboratory Sciences, Biochemistry and Molecular Biology, Introduction to statistics
Elective courses: Applied Physics, Applied Chemistry, Applied Biology, Animal Anatomy, Animal Physiology, Communication Skills I, Microcomputers

Semester 2

Core courses: Laboratory safety and management, Psychology, Laboratory planning and organization, Laboratory Materials, Chemicals and Biologicals, Troubleshooting in Laboratory Systems.

Elective courses: Cell biology, Basic Pharmacology, Computer Applications.

Semester 3

Core courses: Management of laboratory animals and plants, Parasitology and entomology, Basic analytical chemistry, Microbiology, Research Methodology

Elective courses: Advanced Mathematics, Experimental Chemistry, Experimental Biology, Experimental Physics, Cell and Tissue Culture Techniques, Basic Pathology, Principles of Development.

Semester 4

Core courses: Occupational health and laboratory practices, Ethics in Laboratory Practice, Basic Principles of Administration and Management, Biotechnology, Research Project

Elective courses: Teaching methods, Principles of Radiology and Laboratory Photography, Basic Toxicology

Career Opportunities

Graduates of this diploma programme work as technicians in Medical and Animal Diagnostic and research laboratories, Agriculture laboratories and also as Assistant Laboratory Managers

Diploma in Tropical Animal Health and Production

The programme aims to produce qualified and practically competent veterinary paraprofessionals who will contribute to the development of the livestock industry, public health sector, and to the improvement of living standards of the people of Tanzania and of the world in general

Semester 1

Core courses: Gross Anatomy and General Histology, Animal Physiology, Introduction to Biochemistry, Farm Structures, Farming Systems Approach
Elective courses: Introduction to Animal Health, Management Ethnology, Introduction to Statistics, Introduction to Microcomputer, Communication Skills I

Semester 2

Core courses: Microbiology, Parasitology, General Pathology, Animal Nutrition, Pasture Production and Natural Resources Management, Animal Breeding

Elective courses: Dairy and Beef Cattle Husbandry, Agricultural Extension, Computer Applications

Semester 3

Core courses: Pharmacology, Therapeutics and Toxicology, Livestock Diseases I (Ruminants), Animal Reproduction and Obstetrics, Small Ruminants Husbandry, Pigs, Poultry and Rabbits Husbandry, Research Project I

Elective courses: Draught Animal Management, Livestock economics and Farm management, Wildlife Ecology

Semester 4

Core courses: Research Project II, Livestock Diseases (II), Basic Surgery, Systemic Pathology, Livestock Products and By-Products, Meat and Fish Inspection and Hygiene, Companion Animals Diseases

Elective courses: Veterinary Legislation and Ethics, Aquaculture and Fish Diseases, Agribusiness and Entrepreneurship

Career Opportunities

Graduates of this diploma programme work as veterinarian assistants (paraveterinarians), Animals Health Field Officers, Animal Health Laboratory Technicians, Animal Research Field Assistants, Assistant Animal Scientists and/or Farm Managers

POSTGRADUATE PROGRAMMES

DEPARTMENT OF VETERINARY MEDICINE AND PUBLIC HEALTH

<https://www.cvmb.sua.ac.tz/vetmedicine>

Master of Preventive Veterinary Medicine

Semester 1

Core Courses: Research Methods, Statistics and Data Management, Applied Epidemiology, Global Health, Descriptive Epidemiology

Elective Courses: Food Quality Control and Inspection, Participatory Epidemiology, Special Study in Preventive Medicine

Semester 2

Core Courses: Ecology and Control of Infectious Diseases, Veterinary Services Governance and Policy, Veterinary Services Governance and Policy, Risk Analysis, Advances in One Health Approaches and Practices

Elective Courses: Zoonoses, Analytical Epidemiology, Epidemiology of Infectious Diseases, Research Paper

Semesters 3 and 4

Dedicated entirely for research leading to a Dissertation

Master of Science in Epidemiology

Semester 1

Core Courses: Research Methods, Statistics and Data Management, Descriptive Epidemiology, Epidemiology of Non-infectious Conditions, Applied Epidemiology

Elective Courses: Food Microbiology and Hygiene, Food Quality Control and Inspection, Participatory Epidemiology, Global Health

Semester 2

Core Courses: Analytical Epidemiology, Risk Analysis, Epidemiology of Infectious Diseases, Zoonoses, Practical Research Design, Management and Presentation;

Elective Courses: Nutritional Epidemiology, Environmental Epidemiology, Ecology and Control of Infectious Diseases, Advances in One Health Approaches and Practices, Field Epidemiology, Molecular Epidemiology, Special Study in Epidemiology

Semesters 3 and 4

Dedicated entirely for research leading to a Dissertation

Master of Science in Public Health and Food Safety

Semester 1

Core Courses: Research Methods, Statistics and Data Management, Applied Epidemiology, Public Health Systems, Global Health, Advanced Food Microbiology and Hygiene

Elective Courses: Descriptive Epidemiology, Health and the Environment, Practical Research Design, Management and Presentation

Semester 2

Core Courses: Zoonoses, Risk Analysis, Food Quality Control and Inspection, Advances in One Health Approaches and Practices

Elective Courses: Research Innovations Management and Commercialization, Food Processing and Preservation, Environmental Hygiene and Water Quality Control, Ecology and Control of Infectious Diseases, Molecular Epidemiology

Semesters 3 and 4

Dedicated entirely for research leading to a Dissertation

Master Science in Public Health Pest Management

Semester 1

Core Courses: Research Methods, Statistics and Data Management, Applied Medical Entomology, Medical Microbiology and Immunology, Applied Ecology and Population Dynamics of Arthropod Pests, Technologies and Methods of Pest Management, Mammals as Pests

Elective Courses: Tropical Malacology, Applied Herpetology, Applied Ornithology, Techniques in Molecular and Cellular Biology, One Health Approaches in Pest Management.

Semester 2

Core Courses: Vector-borne Microbial Diseases, Research Innovations Management and Commercialization, Vector-Borne Parasite, Pesticides and Public Health, Integrated Pest Management in Public Health.

Elective Courses: Pest-borne zoonoses, Biological and Genetical Control of Pests, Pests of Domestic and Wild Animals, Advanced Identification of Arthropod Pests, Risk Analysis

Semesters 3 and 4

Dedicated entirely for research leading to a Dissertation

Master of Science in Health of Aquatic Animal Resources

Semester 1

Core Courses: Research Methods, Statistics and Data Management, Principles of Aquatic Health Management, Fish Anatomy and Physiology, Environmental Contaminants and Aquatic Toxicology.

Fish Nutritional Pathology, Policies and Legislations for Aquatic Resources.

Elective Courses: Epidemiology and Principles of Control and Prevention of Aquatic diseases, Aquatic Resources Management, Eco-health Concepts and Practices in Aquatic Ecosystems

Semester 2

Core Courses: Specialty core courses in Fish Diseases Diagnosis and Management (1): Pathology of Fish Diseases, Aquatic Microbiology, Parasitology and Immunology, Fish Medicine and Principles of Aquatic Diseases Control, Specialty core courses in inspection, processing technologies and safety of aquatic resources (2): Processing Technologies of Aquatic Products, Aquatic Food Safety and Risk Analysis, Specialty core courses in Environmental Health and Impact Assessment (3): Advanced Environmental Contaminants and Aquatic Toxicology, Environmental Impact Assessment and Management.

Specialty Core courses in Conservation Genetics and Reproductive Biotechnology (4): Conservation Genetics for Aquatic Resources, Applied Endocrinology and Reproductive Biotechnology for Aquatic Resources

Elective Courses: Applied Molecular Biology to Aquatic Hosts and Pathogens, Principles of Economics and Entrepreneurship in Aquatic Resources, Practical Research Design, Management and Presentation,

Phycology and Seaweed Farming, Biorisk Management in Aquatic Resources, Gender and Development

Semesters 3 and 4: Dedicated entirely for research leading to a Dissertation

DEPARTMENT OF VETERINARY MICROBIOLOGY, PARASITOLOGY AND BIOTECHNOLOGY

<https://www.cvmb.sua.ac.tz/veterinarymicrobiology>

Master of Science in Applied Microbiology

Semester 1

Core Courses: Research Methods, Statistics and Data Management, Applied Microbiology, Enzyme and Microbial biotechnology, Applied Epidemiology

Elective Courses: Industrial Microbiology, Environmental Microbiology, Emerging and re-emerging diseases and Zoonoses, Medical Microbiology and Virology, Food and feed microbiology, Molecular, Epidemiology, Techniques in Molecular and Cellular Biology

Semester 2

Core Courses: Research Innovations Management and Commercialization, Advanced Bacteriology and Mycology, Advanced Virology, Advanced Immunology, Laboratory quality control and validating new products

Elective Courses: Diagnostic Bacteriology and Mycology, Diagnostic Virology, Vaccine development and Immuno -therapeutics, Immunology of Infectious Diseases, Diagnostic and Research Facilities in Microbiology

Semesters 3 and 4: Dedicated entirely for research leading to a Dissertation

Master of Science in Molecular Biology and Biotechnology

Semester 1

Core Courses: Research Methods, Statistics and Data Management, Advanced Molecular Biology, Techniques in Molecular and Cellular Biology, Biosafety and Ethics in Biotechnology

Elective Courses: Animal Biotechnology, Microbial Biotechnology, Plant biotechnology, Immunobiology, Contemporary Issues in Biotechnology, Protein Biochemistry & Biotechnology

Semester 2

Core Courses: Research Innovations Management and Commercialization, Genomics and Bioinformatics, Genetic Engineering, Molecular Epidemiology

Elective Courses: Advanced Molecular Genetics, Socio-Economic Aspects of Biotechnology, Advanced Cell Biology, Advanced Bacteriology and Mycology, Advanced Virology, Helminthology, Protozoology, Entomology

Semesters 3 and 4: Dedicated entirely for research leading to a Dissertation

Master of Science in One Health Molecular Biology

Semester 1

Core Courses: Research Methods, Statistics and Data Management, Advances in One Health, Pathogen molecular biology, Biosafety and Biosecurity

Elective Courses: Advances One Health Approaches and practices, Public Health Systems, Emerging and re-emerging diseases and Zoonoses, Global Health

Semester 2

Core Courses: Research Innovations Management and Commercialization, Risk Analysis, Immunology of Infectious Diseases, Molecular Epidemiology, Pathogen Evolution and Emerging Infectious Diseases

Elective Courses: Helminthology, Protozoology, Entomology, Advanced Bacteriology and Mycology, Advanced Virology, Ecology and Control of Infectious Disease

Semesters 3 and 4: Dedicated entirely for research leading to a Dissertation

DEPARTMENT OF VETERINARY SURGERY AND THERIOGENOLOGY

<https://www.cvmb.sua.ac.tz/veterinarysurgery>

Master of Science in Animal Reproduction and Biotechnology

Semester 1

Core Courses: Research Methods, Statistics and Data Management, Advanced Molecular Biology, Functional Reproductive Anatomy, Reproductive Biology

Elective Courses: Aquaculture reproduction and gene technology, Reproduction in wild animals, Practical Research Design, Management and Presentation

Semester 2

Core Courses: Molecular Reproductive Endocrinology, Reproductive Toxicology, Reproductive Biotechnologies, Research Innovations Management and Commercialization

Elective Courses: Animal Welfare, Health and Epidemiology, Advances in One Health Approaches and Practices, Animal Reproductive Inhibitors

Semesters 3 and 4: Dedicated entirely for research leading to a Dissertation

Master of Veterinary Surgery

Semester 1

Core Courses: Research methods, Statistics and data management, Clinical and comparative functional anatomy, Soft tissue surgery, Principles of anaesthesia

Elective Courses: Diagnostic Imaging I, Comparative anaesthesiology, Practical research design, management and presentation, Research innovations, management and commercialization

Semester 2

Core Courses: Orthopaedic surgery, Surgical oncology, Special surgery, Clinical apprenticeships

Elective Courses: Experimental surgery, Diagnostic Imaging II, Intensive care anaesthesia and neonatology, Capture and translocation of wild animals

Semesters 3 and 4: Dedicated entirely for research leading to a Dissertation

Master of Science in Parasitology

Semester 1

Core Courses: Research methods, Statistics and Data Management, Practical research design, management and presentation, Experimental Parasitology, Immunobiology

Elective Courses: Helminthology, Tropical Malacology, Techniques in Molecular and Cellular Biology

Semester 2

Core Courses: Applied Parasitology, Parasite ecology and epidemiology, Emerging, re-emerging and neglected parasitic diseases, Research Innovations Management and Commercialization, Proposal Development

Elective Courses: Protozoology, Entomology, Parasitic zoonoses, Molecular Epidemiology

Semesters 3 and 4: Dedicated entirely for research leading to a Dissertation



College of Natural and Applied Sciences

The College of Natural and Applied Sciences (CoNAS) provides training, research, outreach and consultancy services in broad areas of physical and life sciences, records, archives, library, information science and technology, statistics, mathematics and more.

The College is located at the Solomon Mahlangu Campus in Mazimbu, Morogoro and is made up of five Departments namely; the Department of Informatics and Information Technology; the Department of Mathematics and Statistics; the Department of Geography and the Environmental Studies; Department of Biosciences; and Department of Chemistry and Physics.

The College offers both undergraduate and postgraduate programmes that provide a deep understanding of emerging research and technology in Environment, Meteorology, Hydrogeology, Natural Products, Biosciences, Phytochemistry, Mathematics, Statistics, Bioinformatics, Science Teachers' Education, Informatics, Network Science, Computational Sciences, Cognitive and Life Sciences.

Kindly, explore all courses and programmes offered at CoNAS as described on this page, also visit our website at www.conas.sua.ac.tz for recent and updated information about the College, Departments, Programmes, staff profiles and events.



Dr. Geoffrey K. Karugila
Principal, College of Natural and Applied Sciences

PROGRAMMES HOSTED BY THE DEPARTMENT OF INFORMATICS AND INFORMATION TECHNOLOGY

www.conas.sua.ac.tz/informatics

UNDERGRADUATE PROGRAMMES

Bachelor of Information and Records Management

The aim of this programme is to produce competent personnel that will effectively manage recorded information in an ever-changing environment.

Semester 1

Core courses: Foundations of Information Science, Fundamentals of Communication, Principles of Records Management, Introduction to Microcomputers and Applications, Reference Services and Resources

Elective courses: Principles, Theories and Contemporary Issues of Development, Communication Skills I, Basic Mathematics, Reference Services and Resources, Publishing and Book Trade

Semester 2

Core courses: Introductory Statistics, Collection Development and Management, Communication Skills II, Managing Registries and Record Centers, Cataloguing and Classification I

Elective courses: Office Management and Practice, Desktop Publishing, Fundamentals of Computer Networks, ICT for Development

Semester 3

Core courses: Database Management Systems, Fundamentals of Intellectual Property Rights, Marketing of Information Services, Appraisal and Disposal of Records, Information Literacy

Elective courses: Business Information Systems, Managing Personnel Records, Managing Legal Records, Information Services for Rural Communities

Semester 4

Core courses: Automating Information Services, Managing Electronic Records and Archives, Cataloguing and Classification II, Managing Archives, Web Technology

Elective courses: Repackaging and Dissemination of Information, Managing Health Records, Management Information Systems

Semester 5

Core courses: Preservation of Records and Information Resources, Copyrights and Related Rights, Legal, Policy and Ethical Issues in Information Management, Project 1: Research Methods and Proposal Development, Information Security

Elective courses: Managing Financial Records, Information Architecture, Management of Museums, Management Principles and Practice

Semester 6

Core courses: Infopreneurship, Management of Business Archives, Abstracting and Indexing, Knowledge Management and Systems, Research Project 2

Elective courses: Science Communication, Project Planning and Management, Managing Land Records

Career Opportunities

Graduates of this degree programme work as records managers, knowledge managers, science communicators, archivists, librarians and information managers. They will also work as information brokers, content writers and editors, trainers in the information science field, researchers in the field and social media analysts. Prospective employees include libraries, archives, records centers, registries, news houses, publishers and other content developers.

Diploma in Records, Archives and Information Management

The aim of this programme is to produce competent personnel who can effectively and efficiently manage the creation, maintenance, use and disposal of information and records.

Semester 1

Core courses: Computer Applications, Principles of Records Management, Principles of information management, Information Literacy, Communication Skills I

Elective courses: Principles of Development, Office Management and Practice, Basic Mathematics

Semester 2

Core courses: Managing Archives, Introduction to Statistics, Knowledge Management, Managing Registries and Record centres

Elective courses: Business Archives, Desktop Publishing, Communication Skills II

Bachelor of Science in Information Technology

The aim of this programme is to give students a sound knowledge of information technology fundamentals and their applications.

Semester 1

Core courses: Fundamentals of Computer Programming, Basics in Digital Circuitry, Foundation of Analysis, Introduction to Microcomputers and Applications, Linear Algebra I, Numerical Analysis I

Elective courses: Communication Skills I, Organization of Information Communication Theory and Practice, Principles, Theories and Contemporary Issues of Development

Semester 2

Core courses: Fundamentals of Computer Networks, Computer Architecture, Data Structures and Algorithm, Introductory Statistics, Discrete Mathematics, Communication Skills II

Elective courses: Entrepreneurship in ICT I, Organizational Behavior, Social-Cultural Implications of ICT, Information Communication Technology for Development, Linear Programming, Calculus of Functions of a Single Variable

Semester 3

Core course: Database Concepts and Design, Human-Computer Interaction, Geo-Informatics, Object Oriented Programming – I, Web Content Design and Management, Operating System

Elective courses: Communication Skills I, Computer Maintenance and Repair, Computer Graphics, Mathematical Logic and Formal Semantics, Mathematical Statistics

Semester 4

Core courses: Object Oriented Programming – II, Information Systems Analysis and Design, Information Storage and Retrieval, Knowledge Management, Managing Information and Systems, Operations Research

Elective courses: Introduction to Computer Simulation and Modeling, e-learning Design, Ordinary Differential Equations

Semester 5

Core courses: Web Programming, Software Engineering and Project Management, Database Implementation and Management, Network Design and Administration, Information Architecture, Research Project I: Research Methods and Proposal Development

Elective courses: Knowledge Based and Expert Systems, Mobile Application Development, Numerical Analysis II

Semester 6

Core courses: IT Security, Artificial Intelligence, Distributed Systems, Management of Telecommunications and Computer Networks, Professional Skills for IT Practitioners, Research Project II

Elective courses: Records and Archives Management, Decision Support Systems, Entrepreneurship in ICT – II, Functional Analysis

Career Opportunities

Graduates of this degree programme work as technicians, technologists, systems analysts and designers, systems developers, network administrators, database developers and administrators, IT researchers in IT field, trainers in IT field, data specialist, information officer, and instructional e-learning designer. Prospective employees include ICT companies, financial institutions, training institutions, and other private and public institutions.

Semester 3

Core courses: Introduction to Database Management, Project 1: Research Methods and proposal development, Infopreneurship, Managing Electronic Records and Archives, Introduction to Web Publishing

Elective courses: Computer Networking, Principles of Management, Managing Health Records, Digitisation of information Resources

Semester 4

Core courses: Digitisation of information Resources, Legal and Ethical Issues in Information Management, Marketing of Information Services, Preservation of Records and Archives, Library Automation and Institutional Repositories, Research Project II

Elective courses: Policy and Planning for Information Services, Managing Legal Records, Information Technology and Society, Managing Financial records

Career Opportunities

Graduates of this diploma programme work as records managers, knowledge managers, science communicators, archivists, librarians and information managers. They will also work as information brokers, content writers and editors, trainers in the information science field, researchers in the field and social media analysts. Prospective employees include libraries, archives, records centres, registries, news houses, publishers and other content developers.

Diploma in Information Technology

The aim of this programme is to produce knowledge, skills and technical competence in the field of Information Technology (IT)

Semester 1

Core courses: Computing Mathematics, Introduction to Information Technology, Introduction to Computer Networks, Introduction to Computer Hardware and Assembling, Communication Skills

Elective courses: Principles of Problem solving and Programming, Fundamentals of Multimedia, Introduction to Web programming, Computer Architecture and Organization

Semester 2

Core courses: System Analysis and Design, LAN Design and Installation, Computer Peripherals Repair and Maintenance, Database Fundamentals, Programming in C++

Elective courses: IT Project Management, Graphics Design and Desktop Publishing, Website Contents, Management Systems, Operating System

Semester 3

Core courses: Introduction to Data structure and Algorithms, Introduction to Object Oriented Programming, Database design and Implementation, Network Switching and Routing, Computer Troubleshooting, Repair and Maintenance

Elective courses: IT Project I, Multimedia equipment and devices, Electronic and Mobile Commerce, Mobile Communication Technologies

Semester 4

Core courses: Development of Web based Applications, Management to Database Systems, Entrepreneurship and Innovation, Network Administration, Mobile Phone Repair, Troubleshooting and Maintenance

Elective courses: IT Project II, Digital video processing and production, Development of Mobile Applications, Professional Skills for IT Practitioners

Career Opportunities

Graduates of this diploma programme work as technicians, technologists, systems analysts and designers, systems developers, network administrators, database developers and administrators, trainers in IT field, data specialist, information officer, and instructional e-learning designer. Prospective employees include ICT companies, financial institutions, training institutions, and other private and public institutions.

Certificate in Information Technology

The aim of this programme is to produce knowledge, skills and technical competence in the field of Information Technology

Semester 1

Core courses: Mathematics for Information Technology, Computer Hardware, Introduction to Computer Networking, Basics of Information Technology, Communication Skills

Elective courses: Managing of Computer Peripherals, Website Design and Development, Graphics Design, Mobile Communication Systems

Semester 2

Core courses: Programming Basics, Introduction to Entrepreneurship, Network Design, Installation and Administration, Introduction to Database Systems, Computer Assembling Maintenance and Repair

Elective courses: Introduction to Operating System, Website Contents Management, Practices of Digital Video Production, Mobile Phone Repair and Maintenance

Career Opportunities

Graduates of this certificate programme work as IT technicians. Prospective employees include ICT companies, financial institutions, training institutions, and other private and public institutions.

Diploma in Information and Library Science

The aim of this programme is to produce competent personnel that will effectively manage and provide information in an ever-changing information environment.

Semester 1

Core courses: Computer Applications, Introduction to Library and Information Science, Principles of Information Management, Information Literacy, Publishing and Book Trade, Communication Skills I

Elective courses: Basic Mathematics, Principles of Development, Principles of Records Management

Semester 2

Core courses: Introduction to Statistics, Cataloguing and Classification I, Collection Development, Knowledge Management, Communication Skills II

Elective courses: Desktop Publishing, Managing Archives, Contemporary Issues in Library and Information Services

Semester 3

Core courses: Introduction to Database Management, Project 1: Research Methods and Proposal Development, Infopreneurship, Introduction to Web Publishing, Cataloging and Classification II

Elective courses: Computer Networking, Principles of Management, Digitisation of information Resources

Semester 4

Core courses: Legal and Ethical Issues in Information Management, Marketing of Information Services, Abstracting and Indexing, Library Automation and Institutional Repositories, Research Project II

Elective courses: Policy and Planning for Information Services, Rural information services, Information Technology and Society

Career Opportunities

Graduates of this diploma programme work as records managers, knowledge managers, science communicators, archivists, librarians and information managers. They will also work as information brokers, content writers and editors, trainers in the information science field, researchers in the field and social media analysts. Prospective employees include libraries, archives, records centres, registries, news houses, publishers and other content developers.

POSTGRADUATE PROGRAMMES

PhD in Library Studies

The Department of Informatics and Information Technology offers doctoral studies in librarianship, information science, records management and information technology.



PROGRAMMES HOSTED BY THE DEPARTMENT OF CHEMISTRY AND PHYSICS

www.conas.sua.ac.tz/chemistryphysics

UNDERGRADUATE PROGRAMMES

Bachelor of Science with Education majoring in Physics and Geography

The aim of this programme is to produce well-qualified teachers in support of government initiatives in improving the quality of secondary education in the areas of Physics and Geography

Semester 1

Core Courses: Classical Mechanics, Electromagnetism I, Physics Practical I, Introduction to Physical Geography, Spatial Organization, Principles of Education, Introduction to Educational Psychology

Elective Courses: Environmental Resources and Food Security, General Mathematics I, Principles, Theories and Contemporary issues of Development, Communication Skills I, Organisation of Information

Semester 2

Core Courses: Vibrations and Waves, Physics Optics, Population Studies, Introductory Statistics, Teaching Methods, Computer Applications, Communication Skills II, Teaching Practice,

Elective Courses: Relativity and Cosmology, Introduction to Environmental Education, Environmental Geomorphology, Meteorological Instrumentation, General Mathematics II, History of Education

Semester 3

Core Courses: Fundamentals of Quantum Mechanics, Fundamentals of Electronics, Physics Practical III, Surveying and Mapping Science, Population and Development, Principles of Curriculum Development

Elective Courses: Electromagnetism II, Atmospheric Physics, Hydrogeology and Water Resources Management, General Mathematics III, Sociology of Education, International and Comparative Education, Childhood Development and Learning, Entrepreneurship Development

Semester 4

Core Courses: Statistical Thermodynamics, Physics Practical IV, Quantitative Methods in Geography, Remote Sensing and GIS, Climatology, Educational Assessment and Evaluation, Guidance, Counselling and Special Needs Education, Teaching Practice

Elective Courses: Fundamentals of Materials Science, Computational Physics, Radioactivity and Environmental Radiology, Human Resources Management in Education, Organizational Behaviour in Education

Semester 5

Core Courses: Physics of the Atom, Physics Practical V, Soil Resources, Agricultural Systems and Location, Educational Media and Technology, Research project I: Research Methods and Proposal Development

Elective Courses: Soil Physics, Astronomy and Astrophysics, Environmental Education and Conservation, Applied Climatology, Technology and the Environment, Economics of Education and Finance

Semester 6

Core Courses: Solid State Physics, Earth-Atmosphere System, Biogeography, Contemporary Geography of Africa, Educational Management and Administration, Research project II, Teaching Practice

Elective Courses: Diagnostic Radiology Physics, Agriculture and Rural Settlement Planning, Climate Change Science and Disaster Management, Meteorological Data Analysis and Display Systems, Global Environmental Policies and Advocacy, Tropical Meteorology, Philosophy of Education, School Governance

Career opportunities

Graduates of this degree programme work as teachers. Prospective employees include Government, Higher Learning Institutions, Research institutions, Private institution and NGOs'



Bachelor of Science with Education majoring in Physics and Mathematics

The aim of this programme is to produce well-qualified teachers in support of government initiatives in improving the quality of secondary education in the areas of Physics and Mathematics

Semester 1

Core Courses: Classical Mechanics, Electromagnetism I, Physics Practical I, Foundations of Analysis, Linear Algebra I, Principles of Education, Introduction to Educational Psychology

Elective Courses: Numerical Analysis I, Principles, Theories and Contemporary issues of Development, Communication Skills I*, Organisation of Information Semester 2

Core Courses: Vibrations and Waves, Physics Optics, Physics Practical II, Calculus of Functions of a Single Variable, Teaching Methods, Computer Applications, Communication Skills II, Teaching Practice

Elective Courses: Relativity and Cosmology, Introductory Statistics, Linear Programming, Linear Algebra II, History of Education

Semester 3

Core Courses: Fundamentals of Quantum Mechanics, Fundamentals of Electronics, Physics Practical III, Calculus of Functions of Several Variables, Mathematical Logic and Formal Semantics, Mathematical Statistics, Principles of Curriculum Development

Elective Courses: Electromagnetism II, Atmospheric Physics, General Mathematics III, Sociology of Education, International and Comparative Education, Childhood Development and Learning, Entrepreneurship and Development

Semester 4

Core Courses: Statistical Thermodynamics, Physics Practical IV, Operations Research, Ordinary Differential Equations, Educational Assessment and Evaluation, Guidance, Counselling and Special Needs Education, Teaching Practice

Elective Courses: Fundamentals of Materials Science, Computational Physics, Radioactivity and Environmental Radiology, Dynamic meteorology I, History of Mathematics, Human Resources Management in Education, Organizational Behaviour in Education

Semester 5

Core Courses: Physics of the Atom, Physics Practical V, Complex Analysis, Abstract Algebra, Educational Media and Technology, Research project I: Research Methods and Proposal Development

Elective Courses: Soil Physics, Astronomy and Astrophysics, Technology and the Environment, Dynamic meteorology II, Numerical Analysis II, Partial Differential Equations, Economics of Education and Finance

Semester 6

Core Courses: Solid State Physics, Earth-Atmosphere System, Rigid Body Mechanics, Functional Analysis, Educational Management and Administration, Research project II, Teaching Practice

Elective Courses: Diagnostic Radiology Physics, Continuum Mechanics, Philosophy of Education, School Governance

Career Opportunities

Graduates of this degree programme work as teachers. Prospective employees include Government, Higher Learning Institutions, Research institutions, Private institution and NGOs'



Bachelor of Science with Education majoring in Physics and Chemistry

The aim of this programme is to produce well-qualified teachers in support of government initiatives in improving the quality of secondary education in the areas of Physics and Chemistry

Semester 1

Core Courses: Classical Mechanics, Electromagnetism I, Physics Practical I, Introduction to Physical Chemistry, Basic Analytical Chemistry, Chemistry practical I, Principles of Education, Introduction to Educational Psychology

Elective Courses: Principles, Theories and Contemporary issues of Development, Communication Skills I*, General Mathematics I, Organisation of Information

Semester 2

Core Courses: Vibrations and Waves, Physics Optics, Physics Practical II, Fundamentals of Organic Chemistry, Chemistry practical II, Teaching Methods, Computer Applications, Communication Skills II, Teaching Practice

Elective Courses: Relativity and Cosmology, Introductory Statistics, General Mathematics II, History of Education

Semester 3

Core Courses: Fundamentals of Quantum Mechanics, Fundamentals of Electronics, Physics Practical III, Electromagnetism II, Chemical Thermodynamics, Chemistry practical III, Principles of Curriculum Development

Elective Courses: Atmospheric Physics, Environmental Chemistry, Chemistry of Natural Products, General Mathematics III, Sociology of Education, International and Comparative Education, Childhood Development and Learning, Entrepreneurship and Development

Semester 4

Core Courses: Statistical Thermodynamics, Physics Practical IV, Stereochemistry and Aromaticity, Descriptive Inorganic Chemistry, Chemistry Practical IV, Educational Assessment and Evaluation, Guidance, Counselling and Special Needs Education, Teaching Practice

Elective Courses: Fundamentals of Materials Science, Computational Physics, Occupational Health hazards and Safety Practices, Radioactivity and Environmental Radiology, Environmental Analytical Chemistry, Human Resources Management in Education, Organizational Behaviour in Education

Semester 5

Core Courses: Physics of the Atom, Physics Practical V, Coordination Chemistry, Chemical Kinetics and Electrochemistry, Chemistry Practical V, Educational Media and Technology, Research project I: Research Methods and Proposal Development

Elective Courses: Soil Physics, Astronomy and Astrophysics, Polymer Chemistry, Organic Synthesis, Technology and the Environment, Environmental Toxicology, Economics of Education and Finance

Semester 6

Core Courses: Solid State Physics, Earth-Atmosphere System, Instrumental Methods in Analytical Chemistry, Organic Spectroscopy, Chemistry practical VI, Educational Management and Administration, Research project II, Teaching Practice

Elective Courses: Diagnostic Radiology Physics, Quantum Chemistry, Organic Structure, Reactions and Mechanisms, Philosophy of Education, School Governance

Career Opportunities:

Graduates of this degree programme work as teachers. Prospective employees include Government, Higher Learning Institutions, Research institutions, Private institution and NGOs'

Bachelor of Science with Education majoring in Physics and Information Technology

The aim of this programme is to produce well-qualified teachers in support of government initiatives in improving the quality of secondary education in the areas of Physics and Information Technology

Semester 1

Core Courses: Classical Mechanics, Electromagnetism I, Physics Practical I, Fundamentals of Computer Programming, Communication Theory and Practice, Principles of Education, Introduction to Educational Psychology

Elective Courses: Basic in Digital Circuitry, Introduction to Microcomputers and Applications, Organisation of Information, Discrete Mathematics, Principles, Theories and Contemporary issues of Development, Communication Skills I

Semester 2

Core Courses: Vibrations and Waves, Physics Optics, Physics Practical II, Introductory Statistics, Data Structures and Algorithm, Teaching Methods, Communication Skills II, Teaching Practice

Elective Courses: Relativity and Cosmology, Fundamentals of Computer Networks, Entrepreneurship in ICT I, History of Education

Semester 3

Core Courses: Fundamentals of Quantum Mechanics, Fundamentals of Electronics, Physics Practical III, Database Concepts and Design, Human-Computer Interaction, Principles of Curriculum Development

Elective Courses: Electromagnetism II, Atmospheric Physics, Geo-Informatics, Computer Graphics

Object Oriented Programming I, Sociology of Education, International and Comparative Education, Childhood Development and Learning, Entrepreneurship and Development

Semester 4

Core Courses: Statistical Thermodynamics, Physics Practical IV, Information Systems Analysis and Design, Information Storage and Retrieval, Educational Assessment and Evaluation, Guidance, Counselling and Special Needs Education, Teaching Practice

Elective Courses: Fundamentals of Materials Science, Computational Physics, Radioactivity and Environmental Radiology, Introduction to Computer Simulation and Modelling, Object Oriented Programming II, e-Learning Design, Human Resources Management in Education, Organizational Behaviour in Education

Semester 5

Core Courses: Physics of the Atom, Physics Practical V, Web Programming, Database Implementation and Management, Educational Media and Technology, Research project I: Research Methods and Proposal Development

Elective Courses: Soil Physics, Astronomy and Astrophysics, Technology and the Environment, Network Design and Administration, Economics of Education and Finance

Semester 6

Core Courses: Solid State Physics, Earth-Atmosphere System, Information Technology Security, Artificial Intelligence, Educational Management and Administration, Research project II, Teaching Practice

Elective Courses: Diagnostic Radiology Physics, Records and Archives Management, Professional Skills for IT Practitioners, Entrepreneurship in ICT – II, Philosophy of Education, School Governance

Career Opportunities:

Graduates of this degree programme work as teachers. Prospective employees include Government, Higher Learning Institutions, Research institutions, Private institution and NGOs'



Bachelor of Science with Education majoring in Chemistry and Mathematics

The aim of this programme is to produce well-qualified teachers in support of government initiatives in improving the quality of secondary education in the areas of Chemistry and Mathematics

Semester 1

Core Courses: Introduction to Physical Chemistry, Basic Analytical Chemistry, Chemistry practical I, Foundations of Analysis, Linear Algebra I, Principles of Education, Introduction to Educational Psychology

Elective Courses: Numerical Analysis I, Principles, Theories and Contemporary issues of Development, Communication Skills I*, Organisation of Information

Semester 2

Core Courses: Fundamentals of Organic Chemistry, Chemistry practical II, Calculus of Functions of a Single Variable, Teaching Methods, Computer Applications, Communication Skills II, Teaching Practice, Introductory Statistics

Elective Courses: Linear Algebra II, Linear Programming, History of Education

Semester 3

Core Courses: Chemical Thermodynamics, Chemistry practical III, Calculus of Functions of Several Variables, Mathematical Logic and Formal Semantics, Mathematical Statistics, Principles of Curriculum Development

Elective Courses: Environmental Chemistry, Chemistry of Natural Products, General Mathematics III, Sociology of Education, International and Comparative Education, Childhood Development and Learning, Entrepreneurship and Development

Semester 4

Core Courses: Stereochemistry and Aromaticity, Descriptive Inorganic Chemistry, Chemistry Practical IV, Operations Research, Ordinary Differential Equations, Educational Assessment and Evaluation, Guidance, Counselling and Special Needs Education, Teaching Practice

Elective Courses: Occupational Health hazards and Safety Practices, Environmental Analytical Chemistry, Radioactivity and Environmental Radiology, Dynamic meteorology I, History of Mathematics, Human Resources Management in Education, Organizational Behavior in Education

Semester 5

Core Courses: Coordination Chemistry, Chemical Kinetics and Electrochemistry, Chemistry Practical V, Complex Analysis, Abstract Algebra, Educational Media and Technology, Research project I: Research Methods and Proposal Development

Elective Courses: Polymer Chemistry, Organic Synthesis, Technology and the Environment, Environmental Toxicology, Numerical Analysis II, Partial Differential Equations, Economics of Education and Finance

Semester 6

Core Courses: Instrumental Methods in Analytical Chemistry, Organic Spectroscopy, Chemistry practical VI, Rigid Body Mechanics, Functional Analysis, Educational Management and Administration, Research project II, Teaching Practice

Elective Courses: Quantum Chemistry, Organic Structure, Reactions and Mechanisms, Continuum Mechanics, Philosophy of Education, School Governance

Career Opportunities:

Graduates of this degree programme work as teachers. Prospective employees include Government, Higher Learning Institutions, Research institutions, Private institution and NGOs'

POSTGRADUATE PROGRAMMES

Master of Science with Education (Chemistry)

Master of Science in Analytical Chemistry by Research and Thesis

Master of Science in Phytochemistry by research and Thesis

PhD in Analytical Chemistry by Research and Thesis

PhD in Phytochemistry by Research and Thesis

PhD in Phytomedicine by Research and Thesis

PROGRAMMES HOSTED BY THE DEPARTMENT OF BIOSCIENCES

www.conas.sua.ac.tz/biosciences

UNDERGRADUATE PROGRAMMES

Bachelor of Science with Education majoring in Chemistry and Biology

The aim of this programme is to produce well-qualified teachers in support of government initiatives in improving the quality of secondary education in the areas of chemistry and biology.

Semester 1

Core Courses: Principles of Education, Introduction to Educational Psychology, Introductory Cell Biology & Genetics, Invertebrate Zoology, Introduction to Ecology, Introduction to Physical Chemistry, Basic Analytical Chemistry, Chemistry Practical 1

Elective Courses: Fundamentals of Microbiology, Principles, Theories and Contemporary issues of Development, Basic Mathematics, Communication Skills I

Semester 2

Core Courses: Teaching Methods, Computer Applications, Introductory Statistics, Developmental Biology, Fundamentals of Organic Chemistry, Chemistry practical II, Chordate Zoology, Communication Skills II, Teaching Practice

Elective Courses: Fundamentals, History of Education, Plant Ecology and Phytogeography, Introduction to Environmental Education, Introduction to Agribusiness

Semester 3

Core Courses: Principles of Curriculum Development, Vertebrate Anatomy and Physiology I, Parasitology and Entomology, Botany, Soil Plant relationships, Chemical Thermodynamics, Chemistry practical III

Elective Courses: Sociology of Education, International and Comparative Education, Childhood Development and Learning, Biometry, Agribusiness and Entrepreneurship Development, Chemistry of Natural Products

Semester 4

Core Courses: Educational Assessment and Evaluation, Guidance, Counselling and Special Needs Education, Plant Anatomy and Physiology, Vertebrate Anatomy and Physiology II, Introductory Biochemistry, Stereochemistry and Aromaticity, Descriptive Inorganic Chemistry, Chemistry Practical IV, Teaching Practice

Elective Courses: Human Resources Management in Education, Biodiversity and Conservation, Organizational Behavior in Education

Semester 5

Core Courses: Educational Media and Technology, Research project I: Research Methods and Proposal Development, Molecular Genetics, Chemical Kinetics and Electrochemistry, Coordination Chemistry, Chemistry Practical V

Elective Courses: Economics of Education and Finance, Cell Biology, Physiology of Nutrition, Polymer Chemistry, Organic Synthesis, Economic Botany

Semester 6

Core Courses: Educational Management and Administration, Research project II, Evolution, Instrumental Methods in Analytical Chemistry, Organic Spectroscopy, Chemistry practical VI, Teaching Practice

Elective Courses: Philosophy of Education, School Governance, Advanced Parasitology & Entomology, Quantum Chemistry

Career Opportunities:

Graduates of this degree programme work as teachers. Prospective employees include Government, Higher Learning Institutions, Research institutions, Private institution and NGOs'

Bachelor of Science with Education majoring in Agriculture Science and Biology

The aim of this programme is to produce well-qualified teachers in support of government initiatives in improving the quality of secondary education in the areas of Agriculture Science and Biology

Semester 1

Core Courses: Principles of Education, Introduction to Educational Psychology, Introductory Cell Biology and Genetics, Invertebrate Zoology, Fundamentals of Microbiology, Introduction to Animal Production and Health, Introduction to Ecology

Elective Courses: Principles, Theories and Contemporary issues of Development, Principles and Practices of Horticulture, Introduction to Micro and Macro Economics, Principles of Agriculture Engineering, Communication Skills I

Semester 2

Core Courses: Computer Applications, Teaching Methods, Introductory Statistics, Developmental Biology, Chordate Zoology, Introduction to Agribusiness, Communication Skills II, Teaching Practice

Elective Courses: Genetics, Introduction to Animal Nutrition*, History of Education

Semester 3

Core Courses: Principles of Curriculum Development, Vertebrate Anatomy and Physiology I, Parasitology and Entomology, Principles of Animal Breeding, Botany, Fundamentals of Soil Science, Agribusiness and entrepreneurship Development

Elective Courses: Communication Skills I, International and Comparative Education, Sociology of Education, Crop Physiology, Childhood Development and Learning, Soil Chemistry, Soil Plant relationships, Postharvest Practices

Semester 4

Core Courses: Educational Assessment and Evaluation, Guidance, Counselling and Special Needs Education, Plant Anatomy and Physiology, Vertebrate Anatomy and Physiology II, Introductory Biochemistry, Weed Biology, Annual Crops

Elective Courses: Human Resources Management in Education, Organizational Behaviour in Education, Agroforestry, Fruit Production I, Plant Pathology, Principles of Agronomy

Semester 5

Core Courses: Educational Media and Technology, Research project I: Research Methods and Proposal Development, Soil Fertility and Land Productivity, Ornamental Crops, Molecular Genetics

Elective Courses: Communication Skills I, Economic Botany, Fruit Crops, Economics of Education and Finance, Physiology of Nutrition, Cell Biology

Semester 6

Core Courses: Research project II, Management of Education and School Administration, Evolution, Plant Nutrition, Weed Management, Teaching Practice

Elective Courses: Philosophy of Education, School Governance, Land Husbandry and Conservation Agriculture, Climate Change and its challenges in Agriculture

Career Opportunities

Graduates of this degree programme work as teachers. Prospective employees include Government, Higher Learning Institutions, Research institutions, Private institution and NGOs'

POSTGRADUATE PROGRAMMES**Master of Science with Education (Biology)**

The aim of this programme is to enhance the pedagogical and mastery of the subjects in terms of practical and soft skills.

Semester 1

Core Courses: Educational Research Methods and Design, Applied Learning Theories, Molecular Biology, Advanced Genetics

Elective Courses: Aquatic Biodiversity and Conservation, Protozoology and Helminthology, Advanced Animal Reproductive Physiology, Chemical Ecology, Curriculum Theories and Design, Instructional Leadership for Learning & Change

Semester 2

Core Courses: Educational Measurement and Statistics, Pedagogy of Biology, Biostatistics, Biological Methods and Techniques, Advanced Physiology, Research Proposal Development, Dissertation

Elective Courses: Plant Protection, Soil-plant Water Relations, Fauna and Flora of East Africa, Insect Ecology, Pest and Vector Management, Advanced Instructional Technology, Management of Education Systems and Institutions, Professional Development for Teachers

Semesters 3 and 4: Research Proposal Development, Dissertation

PROGRAMMES HOSTED BY THE DEPARTMENT OF GEOGRAPHY AND ENVIRONMENTAL STUDIES

www.conas.sua.ac.tz/environment

UNDERGRADUATE PROGRAMMES**Bachelor of Science in Environmental Sciences and Management**

The aim of this programme is to produce well-qualified personnel in Environmental Sciences and Management

Semester 1

Core Courses: Introductory Cell Biology and Genetics, Fundamentals of Microbiology, Fundamental of Ecology and Ecosystem, General Chemistry, Introduction to Meteorology, General Mathematics I, Principles, Theories and Contemporary Issues of Development

Elective Courses: Introductory sociology, Environmental Resources and Food Security, Introduction to Micro and Macro Economics, Communication Skills I

Semester 2

Core Courses: Introductory Biochemistry, Botany, Environmental Geomorphology, Meteorological Instrumentation, Introductory Statistics, Communication Skills II, General Mathematics II, Computer Applications

Elective Courses: Introduction to Agribusiness, Principles of Administration and Management, Introduction to Environmental Education

Semester 3

Core Courses: Environmental Chemistry, Hydrogeology and Water Resources Management, Atmospheric Physics, Environmental Microbiology, Environmental Economics, Biometry, Agribusiness and Entrepreneurship Development

Elective Courses: Population and Development, Introduction to Gender and Development, General Mathematics III

Semester 4

Core Courses: Occupational Health Hazards and Safety Practices, Remote Sensing and GIS, Land and Water Pollution and Control, Climatology, Environmental Analytical Chemistry, Biodiversity and Conservation, Environmental Impact Assessment and Management

Elective Courses: Synoptic meteorology I, Mining and the Environment, Dynamic Meteorology I, Radioactivity and Environmental Radiology

Semester 5

Core Courses: Waste Management, Applied Climatology, Fundamentals of Natural Resources Management, Environmental Toxicology, Environmental Law and Legislation, Research Project I

Elective Courses: Synoptic Meteorology II, Dynamic Meteorology II, Technology, Energy and the Environment, Gender and Development

Semester 6

Core Courses: Biotechnology and the Environment, Corporate Environmental Management Systems, Environmental Health Management and Ecological Restoration, Air Pollution, Prevention and Control, Environmental Soil Science, Climate Change Science and Disaster Management, Research Project II

Elective Courses: Meteorological Data Analysis and Display Systems, Global Environmental Policies and Advocacy, Tropical Meteorology

Career Opportunities

Graduates of this degree programme work as environmental experts/ environmental officers/ environmental inspectors/Environmental Management Systems Analysis. Prospective employees include Government, Higher Learning Institutions, Research institutions, Private institution and NGOs', INGOs'

Bachelor of Science with Education majoring in Geography and Biology

The aim of this programme is to produce well-qualified teachers in support of government initiatives in improving the quality of secondary education in the areas of geography and biology.

Semester 1

Core Courses: Introductory Cell Biology and Genetics, Invertebrate Zoology, Introduction to Ecology, Introduction to Physical Geography, Spatial Organization, Principles of Education, Introduction to Educational Psychology

Elective Courses: Environmental Resources and Food Security, Fundamentals of Microbiology, Principles, Theories and Contemporary issues of Development, Communication Skills I, Basic Mathematic

Semester 2

Core Courses: Developmental Biology, Chordate Zoology, Population Studies, Introductory Statistics, Teaching Methods, Computer Applications, Communication Skills II, Teaching Practice

Elective Courses: Introduction to Environmental Education, Plant Ecology and Phytogeography, History of Education, Introduction to Agribusiness

Semester 3

Core Courses: Vertebrate Anatomy and Physiology I, Parasitology and Entomology, Botany, Soil Plant relationships, Surveying and Mapping Science, Population and Development, Sociology of Education, Principles of Curriculum Development

Elective Courses: International and Comparative Education, Childhood Development and Learning, Agribusiness and Entrepreneurship Development, Communication skills 1

Semester 4

Core Courses: Introductory Biochemistry, Vertebrate Anatomy and Physiology II, Plant Anatomy and physiology, Quantitative Methods in Geography, Climatology, Educational Assessment and Evaluation, Guidance, Counselling and Special Needs Education, Teaching Practice

Elective Courses: Biodiversity and Conservation, Remote Sensing and GIS, Human Resources Management in Education, Organizational Behaviour in Education

Semester 5

Core Courses: Molecular Genetics, Soil Resources, Agricultural Systems and Location, Educational Media and Technology, Research project I: Research Methods and Proposal Development

Elective Courses: Physiology of Nutrition, Cell Biology, Environmental Education and Conservation, Economic Botany, Economics of Education and Finance, Communication skills 1

Semester 6

Core Courses: Evolution, Biogeography, Contemporary Geography of Africa, Educational Management and Administration, Research project II, Teaching Practice

Elective Courses: Advanced Parasitology and Entomology, Agriculture and Rural Settlement Planning, Philosophy of Education, School Governance

Career Opportunities:

Graduates of this degree programme work as teachers. Prospective employees include Government, Higher Learning Institutions, Research institutions, Private institution and NGOs'

POSTGRADUATE PROGRAMMES**Master of Science in Hydrogeology and Water Resources Management**

The aim of this programme is to provide advanced training to professionals in hydrogeology so as to promote the sustainable use of groundwater for today's water needs and to protect the resource for the future

Semester 1

Core Courses: Statistics, Groundwater and its Occurrence, Integrated Water Resources Management, Borehole Design, Drilling and Operation, Research Planning and Management

Elective Courses: Environmental Impact Assessment and Management, Remote sensing and Image Interpretation, Geographical Information System

Semester 2

Core Courses: Groundwater modelling, Groundwater Flow in Aquifers, Groundwater Geochemistry and Pollution, Hydrogeological Field Practice, Research Proposal Development

Elective Courses: Research Innovations, Management and Commercialisation, Environmental and Natural Resources Economics, Climate Change Science and Impact Management, Environmental Disaster and Risk Management, Integrated Waste Management

Semesters 3 and 4: Dissertation

**Master of Science in Environmental Sciences, Management and Technology**

The aim of the programme is to provide advanced training to professionals in hydrogeology so as to promote the sustainable use of Environmental resources for the benefit of the current and future generation.

Semester 1

Core Courses: Statistics, Environmental Chemistry, Environmental Biotechnology, Research Planning and Management

Elective Courses: Wastewater Treatment and Technology, Environmental Instrumentation and Analysis, Integrated Water Resources Management, Remote sensing and Image Interpretation, Geographical Information System

Semester 2

Core Courses: Environmental and Natural Resources Economics, Environmental Pollution and Control Technology, Climate Change Science and Impact Management, Environmental Disaster and Risk Management, Research Proposal Development

Elective Courses: Environmental Microbiology, Environmental Safety, Health and Management, Integrated Waste Management, Biodiversity Conservation, Environmental Law, Policy and Management Systems, Research Innovations, Management and Commercialization

Semesters 3 and 4: Dissertation

PhD in Geography and Environmental Studies

PROGRAMMES HOSTED BY THE DEPARTMENT OF MATHEMATICS AND STATISTICS

www.conas.sua.ac.tz/mathematics

UNDERGRADUATE PROGRAMMES

Bachelor of Science with Education majoring in Geography and Mathematics

The aim of this programme is to produce well-qualified teachers in support of government initiatives in improving the quality of secondary education in the areas of Geography and Mathematics

Semester 1

Core Courses: Introduction to Physical Geography, Spatial Organization, Foundations of Analysis, Linear Algebra I, Numerical Analysis I, Principles of Education, Introduction to Educational Psychology

Elective Courses: Principles, Theories and Contemporary issues of Development, Communication Skills I*, Environmental Resources and Food Security

Semester 2

Core Courses: Population Studies, Introductory Statistics, Calculus of Functions of a Single Variable, Teaching Methods, Computer Applications, Communication Skills II, Introduction Agribusiness, Teaching Practice

Elective Courses: Introduction to Environmental Education, Linear Programming, Linear Algebra II, History of Education

Semester 3

Core Courses: Surveying and Mapping Science, Population and Development, Calculus of Functions of Several Variables, Mathematical Logic and Formal Semantics, Mathematical Statistics, Principles of Curriculum Development, Agribusiness and Entrepreneurship Development,

Elective Courses: Sociology of Education, International and Comparative Education, Childhood Development and Learning, Communication Skill I

Semester 4

Core Courses: Quantitative Methods in Geography, Climatology, Operations Research, Ordinary Differential Equations, Educational Assessment and Evaluation, Guidance, Counselling and Special Needs Education, Teaching Practice

Elective Courses: History of Mathematics, Human Resources Management in Education, Organizational Behaviour in Education

Semester 5

Core Courses: Soil Resources, Agricultural Systems and Location, Complex Analysis, Abstract Algebra, Educational Media and Technology, Research project I: Research Methods and Proposal Development

Elective Courses: Environmental Education and Conservation, Numerical Analysis II, Partial Differential Equations, Economics of Education and Finance

Semester 6

Core Courses: Biogeography, Contemporary Geography of Africa, Rigid Body Mechanics, Functional Analysis, Educational Management and Administration, Teaching Practice, Research Project II

Elective Courses: Agriculture and Rural Settlement Planning, Continuum Mechanics, Philosophy of Education, School Governance

Career Opportunities

Graduates of this degree programme work as teachers. Prospective employees include Government, Higher Learning Institutions, Research institutions, Private institution and NGOs'

Bachelor of Science with Education Majoring in Information Technology and Mathematics

The aim of this programme is to produce well-qualified teachers in support of government initiatives in improving the quality of secondary education in the areas of Information Technology and Mathematics

Semester 1

Core Courses: Fundamentals of Computer Programming, Introduction to Microcomputers and Applications, Foundations of Analysis, Linear Algebra I, Numerical Analysis I, Principles of Education, Introduction to Educational Psychology.

Elective Courses: Basic in Digital Circuitry, Organization of Information, Communication Theory and Practice Principles, Theories and Contemporary issues of Development, Communication Skills I

Semester 2

Core Courses: Linear Programming, Introductory Statistics, Calculus of Functions of a Single Variable, Computer Applications, Data Structures and Algorithm, Teaching Methods, Introduction to Agribusiness, Communication Skills II, Teaching Practice

Elective Courses: Linear Algebra II, Discrete Mathematics, Fundamentals of Computer Networks, Entrepreneurship in ICT I, History of Education.

Semester 3

Core Courses: Calculus of Functions of Several Variables, Mathematical Logic and Formal Semantics, Entrepreneurship and Development, Database Concepts and Design, Human-Computer Interaction, Principles of Curriculum Development.

Elective Courses: Mathematical Statistics, General Mathematics III, Geo-Informatics, Computer Graphics, Object Oriented Programming I, Sociology of Education, International and Comparative Education, Childhood Development and Learning.

Semester 4

Core Courses: Ordinary Differential Equations, Introduction to Computer Simulation and Modelling, Information Systems Analysis and Design, Information Storage and Retrieval, Educational Assessment and Evaluation, Guidance, Counselling and Special Needs Education, Teaching Practice.

Elective Courses: History of Mathematics, Operations Research, Object Oriented Programming II, e-Learning Design, Human Resources Management in Education, Organizational Behaviour in Education.

Semester 5

Core Courses: Complex Analysis, Abstract Algebra, Web Programming, Database Implementation and Management, Educational Media and Technology, Research project I: Research Methods and Proposal Development

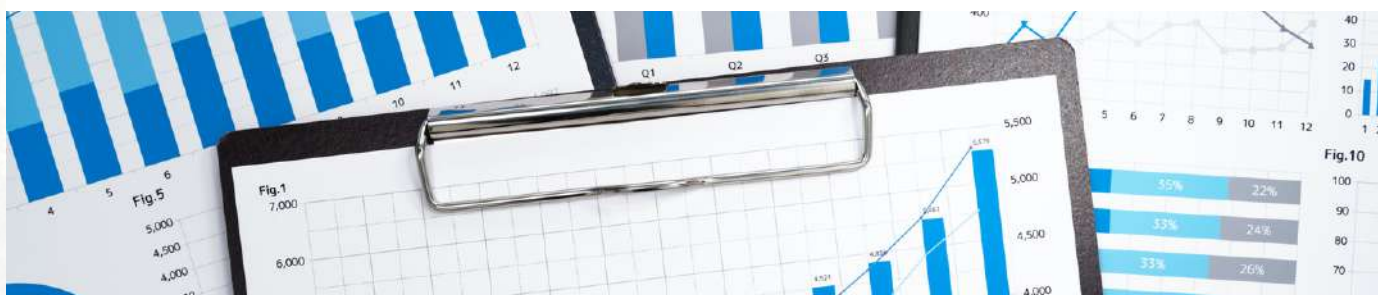
Elective Courses: Numerical Analysis II, Partial Differential Equations, Network Design and Administration, Economics of Education and Finance.

Semester 6

Core Courses: Rigid Body Mechanics, Functional Analysis, Information Technology Security, Artificial Intelligence, Educational Management and Administration, Research project II, Teaching Practice

Elective Courses: Continuum Mechanics, Records and Archives Management, Professional Skills for IT Practitioners, Entrepreneurship in ICT – II, Philosophy of Education, School Governance

POSTGRADUATE PROGRAMMES

Master of Science with Education (Mathematics)



College of Economics and Business Studies

The College of Economics and Business Studies provide the best possible environment for teaching, learning, research and public services in Agricultural Economics, Agribusiness, Trade, Finance, Investment, Banking and Business management with a unique community of students and staff dedicated to bringing out the best in all its members.

The College has four Departments namely; Department of Agricultural Economics and Agribusiness, Department of Business Management, Department of Finance and Accounting, and Department of Trade and Investment.

The College offers bachelor degrees in Agricultural Economics and Agribusiness; Agricultural Investment and Banking. Master degrees in Agricultural and Applied Economics; Business Administration, PhDs in Agricultural Economics and Agribusiness Management.

Our track record of excellence and experience is well known in East Africa, Africa and the rest of the world. Your time with us will always be filled with excitement and experiences that you can treasure for a lifetime.

Visit <https://www.coebs.sua.ac.tz> for more details about our College, Research activities and staff profiles



Dr. Damas L. Philip

Acting Principal, College of Economics and Business Studies

PROGRAMMES HOSTED BY THE DEPARTMENT OF AGRICULTURAL ECONOMICS AND AGRIBUSINESS

www.coebs.sua.ac.tz/agribusiness

UNDERGRADUATE PROGRAMMES

Bachelor of Science in Agricultural Economics and Agribusiness

The aim of this programme is to produce graduates with knowledge and skills in agricultural economics and agribusiness to provide solution for problems in production and marketing of agricultural commodities

Semester 1

Core Courses: Introduction to Agricultural Economics and Development, Introduction to Micro and Macro Economics, Principles of Accounting, Basic Mathematics, Introduction to Animal Production and Health, Computer Applications

Elective Courses: Communication Skills I, Principles, Theories and Contemporary Issues in Development, Introductory Sociology

Semester 2

Core Courses: Mathematics for Economists, Agribusiness Management, Statistics for Economists, Theory of Financial Markets and Institutions, Principles and Practices of Horticulture, Communication Skills II,

Elective Courses: Introductory Anthropology, Introduction to Agricultural Extension

Semester 3

Core Courses: Agribusiness Supply Chain Management, Microeconomics, Agricultural Marketing Management, Farming and Livestock Production Systems, Entrepreneurship and Agribusiness Development, Principles and Practice of Business Laws

Elective Courses: Communication Skills I, Livestock Policies, Legislations and Animal Welfare, Fundamentals of Soil Science, Business Communication, Extension Methods, Introduction to Gender and Development

Semester 4

Core Courses: Quantitative Methods in Agribusiness Management, Crops and Livestock Production Economics, Macroeconomics, Agricultural Price Analysis, Social Research Methods, Principles of Agronomy

Elective Courses: Annual Crops, Programme Planning and Evaluation, Agricultural Administration and Management, Food and Nutrition Security, Vegetable Crops

Semester 5

Core Courses: Research Project I: Economic survey Methods & Research Proposal Development, Agricultural Finance, Credit and Risk Management, Farm Management, Economic Development and Planning, Econometrics, Agribusiness Skills

Elective Courses: Business Strategy, Electronic Commerce, Information and Communication Management, Communication Skills I

Semester 6

Core Courses: Human Resource Management, Natural Resources and Environmental Economics, Agribusiness Project Appraisal and Evaluation, Agricultural Policy Analysis, International Agricultural Trade, Research Project II: The Science of Data Analytics and Research Report Writing

Elective Courses: New Institutional Economics, Principles and Practice of Aquaculture, Perennial Crops, Community Development, Sociology of Development

Career Opportunities:

The graduates of this programme are experts to enhance profitability of agriculture and affordability of agricultural commodities in contemporary agribusiness along the value chain. They are made to develop an attitude towards self-employment in agriculture and agribusiness value chains. Prospective employers include the Research Institutions, Government, Private Sector, NGOs and Self-employment in agriculture related investments, banking and enterprises.

POSTGRADUATE PROGRAMMES

Postgraduate Diploma in Agricultural Economics

Module 1: Agricultural Economic Principles

Microeconomics, Macroeconomics, Principles of Agriculture, Production Economics, Agricultural Price Analysis

Module 2: Quantitative Methods

Statistics for Social Sciences, Mathematical Economics, Quantitative Decision Making Techniques, Econometric Methods, Research Methods

Module 3: Applied Economics

Agricultural Marketing, Resource and Environmental Economics, Agricultural Finance and Credit Management, International Trade Theory and Policy, Farm Business Management, Research Project

MSc. Agricultural Economics

The programme is designed to train students for professional positions in the public agencies, parastatals, private organizations, teaching and research institutions and private agricultural entrepreneurs.

Semesters 1 and 2

Core Courses: Statistics, Intermediate Micro-Economics, Intermediate Macro-Economics, Research Planning and Management, MSc Dissertation

Electives Courses: Survey Methodology, Production Economics, Farm Planning and Management, Advanced Resource Economics, Economic Development, Economic Planning, Agricultural Price Analysis, Advanced Agricultural Management, International Agricultural Trade Policies, Econometrics, Advanced Micro-planning Techniques, Rural Sociology, Agricultural Extension, Agricultural Administration Management, Mathematics for Economics, Food Demand Analysis, Microcomputer Data Handling

Semesters 3 and 4: Dissertation

MSc. Agricultural and Applied Economics

To programme produce graduates with knowledge and skills essential for transforming the agro-food sectors and rural economy.

Semester 1

Core Courses: Microeconomics, Mathematics for Economists, Statistics for Economists, Issues in Agriculture and Applies Economics, Production Economics, Macroeconomics, Econometrics, Research Methods and Management

Electives Courses: Social Organization in Agriculture, Gender and Economic Development, Project Planning & Management, Environmental Valuation and Policy, Quantitative Methods in Environment Economics, Natural Resource Economics & Management, Consumer Demand Analysis, Quantitative Analysis of Agricultural Policies, Food Policy Analysis, International Trade and Policy, Agricultural Marketing and Price Analysis, Factor Market Analysis, Farm Management and Production, Farming Systems and Sustainable Livelihood Analysis, Science and Technology Policy Analysis, Quantitative Methods in Agribusiness Management, Microfinance Foundation/Required Courses: Institutional and Behavioural Economics, Environment and Natural Resource Management, Agricultural Policy Analysis, Agricultural and Rural Development, Agribusiness Management, Finance and Risk Management, Agribusiness Supply Chain Management, Thesis

Semester 2

Core Courses: Production Economics, Macroeconomics, Research Methods and Management, Macroeconomics, Econometrics

PhD. Agribusiness (Course work and research)

This program is expected to produce graduates capable of undertaking high quality research and applying the same in bridging the gaps between policy and practice in agribusiness; agribusiness operations and technology and maintain a competitive advantage in public and private agribusiness activities siloed in Tanzania, Africa and beyond

Semester 1

Core courses: Quantitative and Qualitative, Research Methods, Strategic Agribusiness Management, Advanced Farm business Management, Advanced Managerial Economics

Elective courses: Quantitative Techniques and Operations, Research in Agribusiness Management, The Agro-Industry Analysis, Issues in Agribusiness Sector

Semester 2

Core courses: Scientific Writing and Presentation Skills, Standards for Market Access, International Trade and Policy, Agribusiness Value Chains

Elective courses: Entrepreneurship and Innovation, Life Cycle Assessment for Process, Upgrading and Eco-Design

Semesters 3,4,5,6,7 and 8: Research Proposal & Dissertation

PROGRAMMES HOSTED BY THE DEPARTMENT OF BUSINESS MANAGEMENT

www.coebs.sua.ac.tz/business

UNDERGRADUATE PROGRAMMES**Bachelor of Agricultural Investment and Banking**

The aim of this programme is to produce graduates who will be highly impacted with problem solving skills which will enable them to up-scale agricultural productivity, business and human resource capabilities and eventually improve the welfare of the society as a whole. The programme provides up to date skills and knowledge on current issues in agricultural and applied economics specifically in the business environment of agricultural and natural resource industry management/supervision aspects, such as human resources, finance, investment, marketing and the environment at large.

Semester 1

Core Courses: Principles of Accounting, Business Mathematics and Statistics, Introduction to Agricultural Economics and Development, Introduction to Animal Production and Health, Computer Applications, Principles and Practice of Horticulture

Elective Courses: Entrepreneurial Perspective, Introduction to Micro and Macro Economics, Principles, theories and Contemporary Issues in Development, Communication Skills I

Semester 2

Core Course: Principles of Banking, Principles of Management, Principles of Marketing, Theory of Financial Markets and Institutions, Intermediate Accounting, Entrepreneurship and Business Development

Elective Courses: Business Communication, Production and Operations Management, Introduction to Agricultural Extension, Introduction to Agribusiness

Semester 3

Core Courses: Banking Operations, Cost Accounting, Quantitative Methods for Business Decisions, Development Finance, Business Information Systems, Micro-Economics

Elective Courses: Principles and Practice of Business law, Organization Behaviour, Agricultural Marketing Management, Introduction to Gender and Development

Semester 4

Core Courses: Financial Risk Management, Business Ethics and Corporate Governance, Production Economics, Macro-Economics, Agricultural Price Analysis, Principles of Agronomy

Elective Courses: Microfinance Management, Entrepreneurial Risk management, Services Marketing, Farm Structures and Animal Housing, Technology of Fruits and Vegetables

Semester 5

Core Courses: Business Research Methods and Research Project I, Investment Portfolio Analysis I, Bank Credit and Lending Decisions, Agribusiness Project Appraisal and Evaluation, Agricultural Finance and Credit Management, Farm Management

Elective Courses: Public Policy Analysis for Business, Business Strategy, Publicity and Public Relations, Information and Communication Management, Food Storage and Handling

Semester 6

Core Courses: Business Research Methods and Research Project II, Investment Portfolio Analysis II, Banking Management, Project Planning and Management, Human Resource Management, Rural Finance

Elective Courses: Operations Research, International Agricultural Trade, E-Commerce, Perennial Crops, Technology of Cereals and Tubers

Career Opportunities:

Graduates of this degree programme work as agricultural bankers, agricultural investors, technical advisors in banking and investment in agriculture sector and businesses. Prospective employers include the Research Institutions, Government, Private Sector, NGOs and Self-employment in agriculture related investments, banking and enterprises.

POSTGRADUATE PROGRAMMES**Master of Business Administration (MBA) – Agribusiness**

The programme is designed to develop professionals from agro- allied disciplines to acquire managerial and business knowledge and skills. It is also an ideal career development opportunity for people who are already employed

Semester 1

Core courses: Mathematics and Statistics for Agribusiness, Managerial Economics, Operations Research in Agribusiness Management, Business Law and Ethics, Farm Business Management

Elective courses: Agribusiness Product Development, Quality Control and Legislation, ICT for Agribusiness Management, Research Innovations Management and Commercialization, Agribusiness Supply Chain Management

Semester 2

Core courses: Agribusiness Research Methods, Financial and Managerial Accounting, Agribusiness Marketing: International and Domestic, Strategic Agribusiness Management, Agribusiness Project Appraisal and Evaluation

Elective Courses: Agribusiness policy Analysis, Human Resources Management, Leadership and Governance in Agribusiness, Entrepreneurship development in Agribusiness, Research Proposal development, Research proposal development

Semesters 3 and 4

Core Courses: Issues in Agribusiness (Internship), Research proposal development, Research Paper

Master of Business Administration – Evening Programme (MBA - Evening)

This programme produce graduates with managerial and administrative knowledge related to business management including marketing, management, finance, purchasing, market research, trading and exporting, strategic planning and general business administration. This is an evening modularized programme with specializations in the areas of Finance and Accounting, Marketing and Entrepreneurship, Human Resource Management, Agribusiness.

Semesters 1 and 2 (Core Modules)

Module 1: Economics and Management Theory: Strategic Management, Organizational Theory and Management, Managerial Economics, Management Information System and e-commerce, Business Communication **Module 2:** Quantitative Methods: Quantitative Techniques for Business Decision Making, Business Mathematics and Statistics, Business Research Methods, Planning and Management, Marketing Research

Semesters 3 and 4 (Specialization Modules)

Module 3: Marketing and Entrepreneurship module: Advanced Marketing Management, Entrepreneurship, Retail, Sales, and Supply Chain Management, International Marketing Management, Industrial and consumer Behaviour

Module 4: Finance and Accounting module: Managerial Accounting, Managerial Finance, International Business Finance, Advanced Public Finance, Advanced Corporate Finance

Module 5: Applied Management module: Business Law and Ethics, Advanced Human Resource Management, Seminars in Business Management, Business Finance and Credit Management

Module 6: Agribusiness module: Farm Business Management, Agribusiness Environment, Agribusiness Management, Agribusiness Project Appraisal & Evaluation

Module 7: Research module: Research Proposal and Report/Dissertation



College of Social Sciences and Humanities

Welcome to the College of Social Sciences and Humanities,

The College offers education and training that is rooted in Social Sciences and Humanities, and uses demand-driven curricula that are built around an interdisciplinary, participatory and hands-on approach.

This approach gives students an opportunity to learn-by-doing and to acquire competencies necessary for socio-economic transformation and sustainable development.

The College has four Departments namely; the Department of Development and Strategic Studies; the Department of Policy, Planning and Management; the Department of Language Studies; and the Department of Sociology and Anthropology.

The college offers both undergraduate and postgraduate programmes and courses to students coming from across the country, other African countries and beyond the African continent under exchange programme. Visit <https://www.cssh.sua.ac.tz> for more details about our college including latest events, research projects and staff profiles.



Prof. Juma Samwel Kabote
Principal, College of Social Sciences and Humanities

PROGRAMMES HOSTED BY THE DEPARTMENT OF DEVELOPMENT AND STRATEGIC STUDIES

www.cssh.sua.ac.tz/ds

UNDERGRADUATE PROGRAMMES

Bachelor of Rural Development

This programme produces graduates who can perform a range of tasks and can be employed in development-oriented careers with specific focus on rural development. Graduates have broad and multiple skills to address a wide range of rural development issues

Semester 1

Core Courses: Principles, Theories and Contemporary Issues of Development, Introduction to Economics

Agriculture and Rural Development, Introduction to Natural Resources Management

Introduction to Psychology

Elective Courses: Introductory Sociology, Introduction to Agricultural Economics and Development

Communication Skills, Tourism, Environment and Development, Principles of Accounting

Semester 2

Core Courses: Rural Production Systems, Democracy & Governance, Political Economy Science, Technology & Agrarian Development, Communication Skills II

Elective Courses: Introduction to Agribusiness, Principles of Administration and Management, Extension Communication and Interpersonal Skills, Introductory Anthropology

Semester 3

Core courses: Introduction to Gender and Development, Natural Resources Management

Rural Industrialisation, Introduction to Social Science Statistics, Rural Sociology

Elective Courses: Agribusiness and Entrepreneurship Development, Agricultural Marketing Management, Extension Methods, Urban Rural Interface

Semester 4

Core Courses: Demography and Population Studies, Public Policy, Co-operatives and Rural Development, Conflicts Management, Food and Nutrition Security, Social Research Methodology, Field Practical Training

Elective Courses: International Relations & Economic Co-operation, Promotion and Management of Community Organisation, Environmental Impact Assessment and Management, Extension Program Planning and Evaluation

Semester 5

Core Courses: Gender and Development, Research Proposal Writing, Designing of Development Projects

Introduction to Human Resources Management, Group dynamics and Leadership

Elective Courses: Resource Policy, Legislation and Land Use Economics, Community health and Health Promotion, Population and Development, Participatory Methodology

Semester 6

Core Courses: Human Settlements and Ecology, Rural Finance, Poverty Analysis, Project Appraisal, Monitoring & Evaluation, Research Report Writing, Field Practical Training II

Elective Courses: Human Resources Management, Sociology of Development, Value Chain Approach in Agriculture, Social Impact Assessment

Career Opportunities

The programme produces graduates with contemporary knowledge and skills to plan, manage and build communities' capacity for development interventions and improve people's well-being in sustainable ways. Therefore, BRD graduates are employed as Community Development Officers, Policy Analysts and Planners, Programme Coordinators, Managers or Officers, development planners, trainers, researchers and consultants. Prospective Employers includes Government and Private organizations, training and research institutions, NGOs, CBOs and other rural institutions, and managers of Microfinance Institutions (MFIs)

POSTGRADUATE PROGRAMMES

Master of Arts in Rural Development

The programme aims to impart skills in the analysis of major issues in the theories and practices of agricultural and rural development, with emphasis on interdisciplinary framework, drawing concepts and approaches from different disciplines i.e. economics, sociology, political science etc. It provides for better understanding of the international, national and local level agrarian problems, strategies and policies and the gaps between policy and practice that arise from actual rural conditions. This programme provides opportunities for specialization in Population and Development; Gender and Development and Political Economy of Agrarian Change.

Semester 1

Core Courses: Social Science Research Methodology, Applied Statistics for Social Sciences, Regional & Rural Development Planning, Project Planning, Appraisal, and Implementation, Contemporary Rural Development Issues, Advanced Poverty Analysis

Elective Courses: Demography and Development, Natural Resources and Environmental Management, Rural Industrialization, Human Resources Management

Semester 2

Core Courses: Gender and development, Political Economy of Rural Development, Public Policy Analysis, Project Monitoring and Evaluation, Entrepreneurship and Development, Land Reforms and Development, Research Innovations and Commercialization, Research proposal development

Elective Courses: Rural-urban Linkages, Governance and Development, Microfinance and Rural Financing, Food Security, Sociology of Development

Semesters 3 and 4: Dissertation

PROGRAMMES HOSTED BY THE DEPARTMENT OF POLICY, PLANNING AND MANAGEMENT

www.cssh.sua.ac.tz/policyplanning

UNDERGRADUATE PROGRAMMES

Bachelor of Arts in Development Planning and Management

This programme produce graduates who have contemporary knowledge and skills to enable them plan and manage development interventions and build communities' capacity to also plan and manage such interventions so that the interventions can result in improvement of people's well-being in sustainable ways.

Semester 1

Core Courses: Introduction to Development Planning and Management, Introduction to Human Resource Management, Principles, Theories and Contemporary Issues of Development, Basic Mathematics, Introduction to Micro and Macro Economics

Elective Courses: Introductory Sociology, Computer Applications, Communication Skills I

Semester 2

Core Courses: Planning Theory and Practice, Introduction to National Development Planning, Principles of Management, Introductory Statistics, Communication Skills II

Elective Courses: Development and Sustainability, Political Economy, Introductory Anthropology

Semester 3

Core Courses: Agricultural Development Planning, Regional Development Planning, Industrial Development Planning, Social Policy and Social Services Planning in Development, Microeconomics

Elective Courses: Introduction to Gender and Development, Agricultural Marketing Management, Entrepreneurship and Agribusiness Development

Semester 4

Core Courses: Urban Planning, International Planning and Development, Public Policy, Social Research Methodology, Macroeconomics, Field Practical Training I

Elective Courses: Introduction to Demography and Population studies, Conflict Management, Environmental Impact, Assessment and Management

Semester 5

Core Courses: Integrated Planning and Management, Research Project I: Proposal Development, Human Resource Planning and Management, Designing of Development Projects, Econometrics

Elective Courses: Gender and Development, Population and Development, Economic Development and Planning

Semester 6

Core Courses: Natural Resource Planning and Management, Public Finance Planning, Research Project II: Report Writing, Spatial Planning, Project Appraisal, Monitoring and Evaluation, Field Practical Training II

Elective Courses: Agricultural Policy Analysis, Sociology of Development, Social Impact Assessment

Career Opportunities

The graduates work as leaders in development projects and organizations that aims for sustainable exploitation of resources for the betterment of the society in diverse settings. They are employed in government and private organizations, training and research institutions, NGOs, CBOs and other rural institutions, and managers of development projects nationally and internationally.

POSTGRADUATE PROGRAMMES

Master of Arts in Project Management and Evaluation

The aim of the Master of Arts in Project Management and Evaluation (MA.PME) degree programme is to equip students with up-to-date knowledge and skills to enable them plan, manage and evaluate projects and programmes for sustainable development.

Semester 1

Core Courses: Social Science Research Methodology, Project Planning and Appraisal, Project Monitoring and Evaluation, Statistical Methods for Project Management, Environmental and Social Impact Assessment, Development Planning

Elective Courses: Demography and Development, Natural Resources and Environmental Management, Contemporary Rural Development Issues, Human Resources Management, Research Proposal Development

Semester 2

Core Courses: Project Financing, Managing Development Projects, Budgeting and Accounting for Project Managers, Impact Evaluations, Research Innovations and Commercialization

Elective Courses: Political Economy of Rural Development, Entrepreneurship and Development, Governance and Development, Land Reforms and Development, Microfinance and Rural Financing, Public Policy Analysis, Gender and Development, Dissertation

Master of Arts in Development Planning and Policy Analysis

Master of Arts in Development Planning and Policy Analysis (MA. DPPA) is a 24 months programme, which aims to produce competent graduates with up-to-date knowledge and skills of planning and developing, analyzing and managing national and international policies and programmes for sustainable development.

Semester 1

Core Courses: Planning Theory and Practice, Development Policy and Practice, Computable General Equilibrium Modelling, Development Planning, Research Design and Methods

Elective Courses: Politics of Development, Project Planning and Appraisal, Project Monitoring and Evaluation,

Semester 2

Core Courses: Policy Impact Analysis, Policy formulation and Advocacy, Community Planning and Participation, Social Policy, Society and Change, Public Policy Analysis

Elective Courses: Poverty, Inequality and Growth, Research Innovation, Management and Commercialisation, Gender and Development

Semesters 3 and 4: Research Proposal, Dissertation



PROGRAMMES HOSTED BY THE DEPARTMENT OF LANGUAGE STUDIES

www.cssh.sua.ac.tz/language

UNDERGRADUATE PROGRAMMES

Bachelor of Human Resources Management and Labor Relations

This programme produces experts that are made to be human resource officers, managers and labor officers with excellent ability to create and maintain friendly and productive work environments to increase human resource capital and labor productivity. The graduates are perfect in industries, agricultural sectors, government, international and non-governmental organizations.

Semester 1

Core Courses: Introduction to Human Resource Management, Introduction to Labour Relations and Regulations, Principles of Records Management, Principles of Accounting, Introduction to Ethics and Good Governance

Elective Courses: Principles, Theories and Contemporary Issues of Development, Communication skills, Computer Applications

Semester 2

Core Courses: Principles of Management, Labour Relations Practices, Employment and Labour Relations Acts and Laws, Administrative Law, Communication Skills II

Elective Courses: Labour Relations System Actors, Workers' Participation in Management, Planning Theory and Practice

Semester 3

Core Courses: Introduction to Social Science Statistics, Strategic Human Resource Management, Industrial Relations and Legislation, Organizational Behaviour, Corporate Strategy and Planning

Elective Courses: Management of Human Resource in the Agricultural Sector, Introduction to Gender and Development, Public Administration

Semester 4

Core Courses: Principles of Labour Inspection, Public Policy, Health and Safety in Work Places, Social Research Methodology, Conflict Management and Resolution in Workplaces, Field Practical Training

Elective Courses: Law of contract, Strategic Management, Customer Service Management

Semester 5

Core Courses: Human Resources Training and Development, Research Project I- Research Proposal Development, Human Resource Planning and Management, Human Resource Management Information Systems, Recruitment and Selection

Elective Courses: Organizational Development and Change, Gender and Development, Group Dynamics and Leadership

Semester 6

Core Courses: Human Resource Management Practices, International Human Resource Management, Performance and Reward Management, Research Project II-Research Report Writing, Public Finance Planning, Field Practical Training II

Elective Courses: Managing Public –Private Partnership, Organizational Policy Formulation and Development, Budgeting and Accounting for Human Resource Management

Career Opportunities

Graduates of this programme will have contemporary knowledge, skills and competencies to plan and manage human resources and create conducive employment relations in the work organizations that can lead to achievement of organizational goals and objectives. Therefore, they are employed as human resource officers, managers, directors or labour relation officers, managers or directors in Government and private organizations, training and research institutions, NGOs, CBOs and other institutions at different levels.

Bachelor of Arts with Education (English Language and Literature)

This programme is grounded in the progressivism philosophy in which a learner is considered a problem solver and thinker who makes meaning through individual experiences in the physical and cultural contexts. It is envisioned to foster curiosity, creativity and learner centeredness by considering learners' abilities and interests during the teaching and learning process.

Semester 1

Core Courses: Principles of Education, English Language Teaching Methods, Introduction to the Study of Language, Introduction to Literary Theories, Introduction to English Language Structure, African Literature, English Morphology

Elective Courses: Principles, Theories and Contemporary issues of Development, English Phonemic and Orthographic System, Literature and Society, English Grammar and Writing Mechanics

Semester 2

Core Courses: Introduction to Educational Psychology, Introduction to English Phonetics and Phonology, English Speaking and Listening Skills, Connected Speech in English, Introduction to Literary Devices, Introduction to Poetry, Communication Skills

Elective Courses: Artistry of Story-Telling, History of Education, Computer Applications, Introduction to Agribusiness

Semester 3

Core Courses: Curriculum Development in Language Teaching, Sociology of Education, Introduction to Vocabulary and Semantics, Poetry, Drama, Critical Thinking in Language Teaching, Introduction to Interpretation and Translation Skills

Elective Courses: Children's Literature, English Course Development, Childhood Development and Learning, Agribusiness and Entrepreneurship Development

Semester 4

Core Courses: Human Resources Management in Education, Guidance, Counselling and Special Needs Education, Assessment and Evaluation in Language Teaching, English Grammar and Meaning, Theories of African Oral Literature, Creative Writing

Elective Courses: Organizational Behavior in Education, Tanzanian Literature in English, Construction of English Language Tests, African Women Writers

Semester 5

Core Courses: Educational Media and Technology, Research Project I: Research Methods and Proposal Development, Introduction to English Pragmatics, Development of the Novel, English Language Syllabus and Materials Design, Language and Literature

Elective Courses: Economics of Education and Finance, English as a Foreign Language, Introduction to Argumentative Writing, Professional Writing for Teachers

Semester 6

Core Courses: Philosophy of Education, Research Project II, Management of Education and School Administration, Second Language Classroom Management, African Poetry, Discourse Analysis and English Language Teaching

Elective Courses: School Governance, English Dialects and Registers, The African Novel, Content Based Instruction for Language Teachers

Career Opportunities

Graduates from Bachelor of Arts with Education (English Language and Literature) are employed as teachers, curriculum developers, language interpreters and translators, and education managers by public and private institutions in Tanzania and outside the country.



School of Engineering and Technology

The School of Engineering and Technology (SoET) offers training, research, consultancy and extension services in the disciplines of Land Use Planning, Agricultural Engineering, Irrigation and Water Resources Engineering, Food Science and Technology, Bio-Processing and Post-Harvest Engineering.

The School is made up of three Departments namely; the Department of Agricultural Engineering; the Department of Civil and Water Resources Engineering; and the Department of Food Science and Ago-processing.

The school is dedicated to provide quality knowledge and skills to students for successful careers.

The School has a metal and machinery workshop, engineering design and drawing workshop, quality control laboratory, pilot plant, building materials testing workshop, and hydraulic laboratory all equipped with up to date equipment

The school offers four undergraduate degree programmes in Agricultural Engineering; Irrigation and Water Resource Engineering; Food Science and Technology; and Bio-Processing and Post-Harvest Engineering. In addition, the School offers six post graduate degree programmes in the disciplines of Land Use Planning and Management, Agricultural Engineering, Irrigation Engineering and Management, Post-harvest Technology and Management, Food Science, and Food Quality and Safety Assurance.

Visit <https://www.soet.sua.ac.tz> for more details about the School, latest activities, projects and staff profiles



Prof. Boniface P. Mbilinyi
Acting Dean, School of Engineering and Technology

PROGRAMMES HOSTED BY THE DEPARTMENT OF AGRICULTURAL ENGINEERING

www.soet.sua.ac.tz/engineering

UNDERGRADUATE PROGRAMMES

Bachelor of Science in Agricultural Engineering

The programme deliver the necessary background in technology, analytical and managerial skills which will enable graduates to analyse and assess engineering systems for effective application to agriculture. Students gain knowledge and skills in the design, construction, operation, management and maintenance of water supply systems, simple renewable energy systems for agricultural production and agricultural production as well as for domestic purposes, respectively,

Semester 1

Core courses: Workshop Training, Engineering Drawing, Engineering Statics, General Mathematics I, Introduction to Animal Production and Health

Elective courses: Introduction to Geographic Information Systems (GIS) and Remote Sensing, Computer Application, Introduction to Meteorology, Communication Skills I, Introductory Sociology, Introductory Agricultural Economics, Introductory Geology and Soil Formation

Semester 2

Core courses: Workshop Training II, Engineering Dynamics, Fundamentals of Electrical Engineering, General Mathematics II, Introduction to Programming for Engineers, Introductory Statistics

Elective courses: Communication Skills II, Computer Applications for Engineers, Agricultural Microbiology, Introduction to Agribusiness, Principles of Administration & Management

Semester 3

Core courses: Strength of Materials, Thermodynamics, Biometry, Introduction to Engineering Design, Fundamentals of soil science

Elective courses: Introduction to Electronics, Agribusiness and Entrepreneurship development, Extension Methods, Soil Classification

Semester 4

Core courses: Numerical Methods I, Land Surveying, Engineering Materials Technology, Fluid Mechanics, Physical Hydrology

Elective courses: Principles of Agronomy, System Dynamics, Fundamentals of Heat and Mass Transfer, Basics of Computer Programming, Climatology, Farm Management, Occupational Health Hazards and Safety Practices, Environmental Impact Assessment

Semester 5

Core courses: Engineering Properties of Biological Materials, Design of Irrigation Systems, Analysis of Structures, Agricultural Machinery Design, Instrumentation and Measurements

Elective courses: Microcomputer Systems, Water Supply Engineering, Numerical Methods II, Designing Rural Development, rogrammes/Projects

Semester 6

Core courses: Research Methods I, Computer Aided Drafting and Design, Soil Mechanics and Foundation Engineering, Agricultural Machinery and Equipment, Renewable Energy Resources and Technologies

Elective courses: Post-harvest Technologies of Industrial Crops, Unit Operations I, Electrical Power Systems and Machines, Sediment Transport, Communications and Computer Networking, Hydrogeology, Rainwater Harvesting

Semester 7

Core courses: Research Project II, Mechanics of the Tractor and Implements, Engineering operations Management, Engineering Professional Ethics, Laws and Safety, Waste Treatment Systems Design and Management

Elective courses: Irrigation Structures, Soil and Water Conservation Engineering, Process Plant Design and Hygiene, Soil-Water-Crop modelling and Simulation, Sensors and Controls for Precision Agriculture, Post-harvest handling and storage of non-Perishable commodities

Semester 8

Core courses: Research Project III, Construction Techniques, Cost Estimates and Tendering, Farmstead Planning and Construction of Farm Structures, Irrigation Water Management, Agricultural Machinery Management, Ergonomics, Safety, and Maintenance

Elective courses: Aspects of Financial and Human Resource Management, Packaging and Packaging Design, Unit Operations II, Design of Detention Reservoirs and Small dams, Mathematical planning Techniques, Post-harvest Handling and Preservation of semi-perishable and Perishable Produce, Mechatronics

Career Opportunities

Graduates in this program are employed in various capacities in diverse institutions such as Government Ministries, Parastatal organizations, NGOs, CBOs, Local governments, Multilateral international agencies and the Private sector. Graduates can also work as Private Practice as an agricultural engineer and other specialist positions in the field of agricultural engineering.

POSTGRADUATE PROGRAMMES

Master of Science in Land Use Planning and Management

The aim of the programme is to develop the required human resource base in the region to address issues related to planning and management of land resources. Specifically, the programme is designed to Impart operating capabilities in the use of remotely sensed data; Induce awareness in environmental protection; and strengthen competence and practical skills in rural development and sustainable agriculture.

Semester 1

Core courses: Soil Genesis, Survey and Land Evaluation, Remote Sensing and Image Interpretation, Soil and Water Conservation, Geographic Information System, Agricultural Meteorology

Elective courses: Introductory Geomorphology, Introduction to Computer Programming, Instrumentation and Measurement in Agricultural Engineering, Ecology and Tropical Biology

Semester 2

Core courses: Research Planning and Management, Principles of Land Use Planning, Project Planning and Management, Business Studies, Statistics for Technology

Elective courses: Soil Mineralogy, Agricultural Extension and Farming Systems, Soil Plant Water Relations, Operations Research

Semesters 3 and 4: Dissertation

Master of Science in Agricultural Engineering

The programme is designed to train students to contribute to agricultural development through the application of engineering principles and techniques to agricultural production problems, both pre-and post-harvest, and through the management of projects in which engineering plays a significant role.

Semesters 1 and 2

Core courses: Statistics, Research Planning and Management, Introduction to Programming, Instrumentation and Measurement in Agricultural Engineering, Project Planning, Soil Plant Water Relations

Elective courses: Photogrammetry, Airphoto Interpretation and Remote Sensing, Land Resource Planning, Land Resource Management, Soil and Water Conservation, Thermodynamics, Irrigation Design, Drainage and Land Reclamation, Properties of Crop Materials, Crop Drying, Crop Processing, Storage and Material Handling & farm Structures Design, Agricultural Machinery Operations & Management, Design & Manufacturing of Agricultural Machinery, Soil and Tractor Implement Mechanics, Agricultural Extension and Farming Systems, Hydrology and Agrometeorology, Agricultural Water Management,

Semesters 3 and 4: MSc Dissertation



PROGRAMMES HOSTED BY THE DEPARTMENT OF CIVIL AND WATER RESOURCES ENGINEERING

www.soet.sua.ac.tz/civil

UNDERGRADUATE PROGRAMMES

Bachelor of Science in Irrigation and Water Resources Engineering

The aim of the programme is to deliver and impart the necessary background in technology, analytical and managerial skills which will enable graduates to analyse and assess engineering systems for effective application to irrigated agriculture, water supply and water resources management. To provide knowledge and skills in the design, construction, operation, management and maintenance of irrigation and water resources systems including rain water harvesting for agricultural production as well as for domestic and other uses.

Semester 1

Core courses: Workshop Training, Engineering Drawing, Engineering Statics, General Mathematics I, Introduction to Geographic Information Systems (GIS) and Remote Sensing

Elective courses: Computer Application, Introduction to Meteorology, Communication Skills I, Introductory Sociology, Introductory Agricultural Economics, Introductory Geology and Soil Formation, Theories, Principles and Contemporary Issues in Development

Semester 2

Core courses: Workshop Training II, Fundamentals of Electrical Engineering, Engineering Dynamics, Introductory Statistics, General Mathematics II, Introduction to Programming for Engineers

Elective courses: Communication Skills II, Computer Applications for Engineers, Introductory Soil Physics, Principles of Accounting, Principles of Administration and Management, Introduction to Agribusiness

Semester 3

Core courses: Engineering Design, Strength of Materials, Thermodynamics, Biometry, Introduction to Engineering Design, Fundamentals of soil science

Elective courses: Introduction to Electronics, Agribusiness and Entrepreneurship development, Extension Methods, Soil Classification, Occupational Health and Safety Practices

Semester 4

Core courses: Numerical Methods I, Land Surveying, Engineering Materials Technology, Fluid Mechanics, Physical Hydrology

Elective courses: Principles of Agronomy, Systems Dynamics, Computer Programming, Climatology, Farm Management

Semester 5

Core courses: Analysis of Structures, Water Supply Engineering, Drainage and Land Reclamation, Waste Treatment, Systems Design and Management, Applied Engineering Hydrology, Design of Irrigation Systems

Elective courses: Instrumentation and Measurements, Integrated Watershed Management, Soil Pollution and Management of Agricultural wastes, Numerical Methods II, Designing Rural Development Programmes/Projects

Semester 6

Core courses: Research Methods and Research Project I, Irrigation Agronomy, Soil Mechanics and Foundation, Engineering, Rainwater Harvesting, Hydrogeology, Computer Aided Drafting and Design

Elective courses: Electrical Power Systems and Machines, Sediment Transport, Communications and Computer Networking, Agricultural Machinery Management, Renewable Energy Resources and Technologies, Soil Physics for Irrigation and Water Resources Engineers

Semester 7

Core courses: Research Project II, Irrigation Structures, Soil and Water Conservation Engineering, Engineering Operations Management, Soil-Water-Crop Modelling and Simulation, Engineering Professional Ethics, Laws and Safety

Elective courses: Integrated Water Resources Management (IWRM), Environmental Hydraulics, Agribusiness Finance and Credit Management, Sensors and Controls for Precision Agriculture

Semester 8

Core courses: Research Project III, Design of structures, Design of Detention Reservoirs and Small Dams, Irrigation Water Management, Construction Techniques, Cost estimate and Tendering, Ergonomics, Safety and Maintenance

Elective courses: Public Health in Water Resources Development, Aspects of Financial and Human Resource Management, Mathematical Planning Techniques, Environmental Impact Assessment and Management, Agricultural Machinery Management

Career Opportunities

Graduates in this program are employed in various capacities in diverse institutions such as Government Ministries, Parastatal organizations, Water utilities, Water Basins, Local governments, Private Entities, NGOs, CBOs, Multilateral international agencies. Graduates can also work as Private Practice as irrigation engineers, water resources engineers, hydrologists, other specialists' positions in the field of irrigation, water supply, water resources management, and design of water structures including wastewater treatment structures.

POSTGRADUATE PROGRAMMES

Master of Science in Irrigation Engineering and Management

The aim of the programme is to impart students with knowledge and skills needed to design, operate, and maintain irrigation systems and associated water sources conservation, and water supply and drainage networks at field, scheme, and watershed level

Semester 1

Core courses: Drainage and Land Reclamation Principles and Applications, Advanced Hydrology, Advanced Surface Irrigation Systems, Pressurized Irrigation Systems, Research Planning, Experimentation and Statistics, Agricultural Systems Modelling and Simulation

Elective courses: Crop Water Requirements, Advanced Computer Programming, Soil and Water Conservation, Groundwater Resources Development

Semester 2

Core courses: Project Planning and Management, Advanced Trickle Irrigation Systems, Soil-Plant-Water Relations, Advanced Statistical Methods, Research Innovations Management and Commercialization, Applied GIS and RS in IEM, Research Proposal Development

Elective courses: Climate Change and Agriculture, Hydraulic Structures, Quantitative Methods and Operational Analysis

Semesters 3 and 4: Dissertation



PROGRAMMES HOSTED BY THE DEPARTMENT OF FOOD SCIENCES AND AGRO-PROCESSING

www.soet.sua.ac.tz/food

UNDERGRADUATE PROGRAMMES

Bachelor of Science in Food Science and Technology

The aim of the programme is to provide a degree-level education in food science and technology, from which the graduates can enter a career in the food industry or employment in other sectors of the food chain, or related scientific sectors or self-employment.

Semester 1

Core courses: Introduction to Food Science, Engineering Drawing, Food Biochemistry, Food Microbiology I, Nutritional Physiology, Basic Mathematics

Elective courses: Introduction to Agricultural Economics and Development, Introduction to Micro and Macro Economics, Principles of Accounting, Principles, Theories and Contemporary Issues of Development, Agriculture and Rural Development, Communication Skills I

Semester 2

Core courses: Food Physical Chemistry, Principles of Food Engineering I, Introductory to Food Biotechnology, Food Analysis and Instrumentation, Computer Applications, Introductory Statistics, Communication Skills II

Elective courses: Introduction to Agribusiness, Introduction to Agricultural Extension, Introductory Anthropology, Principle of Administration and Management, Extension Communication and Interpersonal Skills

Semester 3

Core courses: Food Analysis and Instrumentation II, Food Enzymology, Principles of Food Engineering II, Food Chemistry, Food Microbiology II, Principles of Food Processing and Preservation

Elective courses: Extension Methods, Macroeconomics, Agribusiness and Entrepreneurship Development, Introduction to Gender and Development, Communication Skills I

Semester 4

Core courses: Unit Operations in Food Processing I, Technology of Fruits and Vegetables, Technology of Meat and Fish, Sensory Evaluation of Foods and Product Development, Technology of Legumes and Oilseeds, Food Storage and Handling, Food and Nutrition Security

Elective courses: Agricultural Administration and Management, Environmental Impact Assessment and Management, Nutritional Biochemistry, Business Laws and Ethics, Extension Programme Planning and Evaluation

Semester 5

Core courses: Research Project I: Research Methods in Food Science and Proposal Development, Applied Food Biotechnology, Food Quality Assurance and Legislation, Food Hygiene, Unit Operations in Food Processing II, Technology of Milk Products, Material Science for Food Technologists

Elective courses: Gender and Development, Communication Skills I, Electronic Commerce, Information and Communication Management

Semester 6

Core courses: Fermentation Technology, Technology of Spices and Non-alcoholic Beverages, Pilot Plant Processes, Plant and Equipment Layout and Maintenance, Food Economics and Industry Management, Food Packaging, Research Project II

Elective courses: Technology of Cereals, Tubers and Sugar, Policy Analysis for Food and Nutrition, Nutrition Information, Education and Communication, Agribusiness Skills II

Career Opportunities

Graduates in this program are employed in various capacities like; in the food industry or employment in other sectors of the food chain (e.g. food supply, manufacture), or related scientific sectors and associated regulatory and advisory works. Graduates can also be self-employed. Also, continue to pursue a PhD degree.

Bachelor of Science in Bioprocess and Post-Harvest Engineering

The program is designed to produce graduate professionals who are well versed with broad knowledge, understanding and skills in bioprocess and post-harvest systems design, operations and management without forgetting the current topical social and human training that any engineer must have, which are essential in beginning a professional carrier; self-employment and attractive to employers in industry, consultancy, public services and NGOs.

Semester 1

Core courses: Workshop Training I, Engineering Drawing, Engineering Statics, Food Biochemistry, General Mathematics I, Food Microbiology I

Elective courses: Computer Applications, Introduction to Food Science, Communication Skills I, Introductory Sociology, Introductory Agricultural Economics, Principles of Accounting

Semester 2

Core courses: Workshop Training II, Engineering Dynamics, Fundamentals of Electrical Engineering, General Mathematics II, Introduction to Programming for Engineers, Introductory Statistics

Elective courses: Communication Skills II, Computer Applications for Engineers, Agricultural Microbiology, Introduction to Agribusiness, Principles of Administration & Management

Semester 3

Core courses: Engineering Design, Biometry, Strength of Materials, Thermodynamics, Materials and Energy Balance, Food Chemistry

Elective courses: Principles of Food Processing and Preservation, Introduction to Electronics, Agribusiness and Entrepreneurship development, Vegetable Production, Extension Methods

Semester 4

Core courses: Numerical Methods I, Engineering Materials Technology, Fluid Mechanics, Fundamentals of Heat and Mass Transfer, Sensory Evaluation of Foods and Product Development, Occupational Health Hazards and Safety Practices

Elective courses: System Dynamics, Basics of Computer Programming, Computer Applications in Statistical Data Analysis

Semester 5

Core courses: Engineering Properties of Biological Materials, Systems Components Design and Selection, Instrumentation and Measurements, Applied Food Biotechnology, Waste Treatment Systems Design and Management

Elective courses: Numerical Methods II, Water Supply Engineering, Microcomputer Systems, Power Electronics, Food Microbiology II

Semester 6

Core courses: Research Methods, Unit Operations I, Post-harvest Technologies of Industrial Crops, Processing and Preservation of Hides and Skins, Computer Aided Drafting and Design

Elective courses: Renewable Energy Resources and Technologies, Communications and Computer Networking, Electrical Power Systems and Machines

Semester 7

Core courses: Research Project I, Postharvest handling and storage of non-Perishable commodities, Process Plant Design and Hygiene, Engineering Professional Ethics, Laws and Safety, Food Quality Assurance and Legislation, Technology of Milk Products

Elective courses: Food Hygiene, Fluid Power Systems, Engineering Operations Management, Electronic Commerce

Semester 8

Core courses: Research Project II, Ergonomics, Safety, and Maintenance, Unit Operations II, Post-harvest Handling and Preservation of Semi-perishable and Perishable Produce, Farmstead Planning and Construction of Farm Structures

Elective courses: Mathematical Planning Techniques, Packaging and Packaging Design, Aspects of Financial and Human, Resource Management, Public Health in Water Resources Development, Environmental Impact Assessment and Management

Career Opportunities

Graduates in this program are employed in various capacities like; in the post-harvest sub-sector, food industry or employment in other sectors of the food value chain or related scientific sectors. Graduates can also be self-employed. Also, continue to pursue higher degree programmes

POSTGRADUATE PROGRAMMES

Master of Science in Food Quality and Safety Assurance

The aim of the programme is to enable the graduate to acquire the scientific, technical and professional skills for teaching/research/executive career in the food industry/food research and teaching institutions.

Semester 1

Core courses: Food Quality and Safety Management, Food Microbiology, Food Toxicology, Food Chemistry and Analysis, Process Control and Instrumentation

Elective courses: Advanced Food Biotechnology, Safety in Handling and Processing of Fruit and Vegetable Products, Safety in Handling and Processing of Fish and Marine Products, Cereal, Legumes, Oilseed and Tuber Crops

Semester 2

Core courses: Food Law and Regulations, Advanced Food Hygiene, Research Methods and Data Analysis, Food Risk Analysis, Research Innovation Management and Commercialization

Elective courses: Safety and Quality in Handling and Processing of Meat, Poultry and Eggs, Food Sensory Evaluation, Storage Technology I, Safety in Handling and Processing of Milk and Milk Products

Semesters 3 and 4: Research Proposal Writing, Dissertation

Master of Science in Food Science

The programme is designed to train highly skilled postgraduates in Food Science and related fields to professional level. These graduates will be able to undertake advanced research and plan for the implementation of food and nutrition programmes in all community levels in the country towards alleviating food and nutrition security problems.

Semester 1

Core courses: Food Chemistry and Analysis, Food Microbiology, Food Engineering, Research Methods and Data Analysis, Advanced Food Biotechnology

Elective courses: Fruit and Vegetable Technology, Cereal, Legumes and Oilseeds, Food Quality and Safety management, Food Toxicology

Semester 2

Core courses: Food Sensory Evaluation, Food Packaging, Transportation and Marketing, Food and Nutrition Security, Research Innovation Management and Commercialization, Research Proposal Writing

Elective courses: Food Risk Analysis, Dairy Technology, Meat and Fish Technology, Sugar, Spices and Condiments Technology, Beverage Technology

Semesters 3 and 4: MSc. Dissertation

Master of Science in Post harvest Technology and Management

The programme aims to produce graduates who will be able to provide advanced technology and management solutions related to post-harvest systems for sustainable growth of the agricultural industry in Tanzania and beyond.

Semester 1

Core courses: Storage Technology, Design of Processing Plants for Agricultural Products, Food Quality and Safety Management, Processing of Common Tropical Foods and Cash Crops, Research Planning, Experimentation and Statistics

Elective courses: Properties of Biological Materials, Operations Research in Agribusiness Management, Advanced Heat and Mass Transfer, Entrepreneurship Management, Agricultural Systems Modelling and Simulation

Semester 2

Core courses: Management of Post-Harvest Systems, Fruit and Vegetable Processing Technology, Bioenergy from Agricultural and Food Waste, Food Packaging, Transportation and Marketing, Meat and Fish Technology

Elective courses: Research Innovations management and commercialization, Advanced Agricultural Process Engineering, Agribusiness Policy Analysis

Semesters 3 and 4: Research Proposal Development





School of Education

The School of Education is dedicated to providing quality knowledge and skills to students studying Education programmes at SUA both pre-service and in-service teachers mainly on the Principles of Education, Curriculum and Pedagogy, Psychology, School Governance, Administration and Human Resources Management, Philosophy, Assessment, Sociology, Media and Technology, and Research

The school hosts three Departments namely; the Department of Educational Psychology and Counselling; the Department of Educational Curriculum and Instruction; and the Department of Educational Foundation and Management. Each of these departments hosts several courses for undergraduate teacher education students within the University.

The school works with educators, policymakers, business leaders and community-based organizations to ensure that every student-teacher is equipped with up-to-date teaching skills and knowledge. Students get a diverse exposure to theoretical perspectives in core-curricular, co-curricular and extra-curricular activities. They are attached to teaching practice stations in all academic years to enable them to graduate with substantial knowledge and skills in teaching.

The School offers two postgraduate degree programmes which are Postgraduate Diploma in Education and Master of Education in Curriculum and Instruction.

Visit <https://www.soe.sua.ac.tz> for more details about our school including the latest activities, current projects, and staff profiles.



Dr. Benedicto W. Msangya
Acting Dean, School of Education

POSTGRADUATE PROGRAMMES

Postgraduate Diploma in Education

This is a one year programme designed for the professionally unqualified who earned a qualification in a subject matter, but who do not have qualification in pedagogy and other Teacher Education courses. The program produces well-qualified teachers in support of government initiatives in staffing secondary schools and other educational areas with experts to man the teaching.

Semester 1

Core courses: Principles of Curriculum Development, Educational Psychology, Educational media and Technology, Principles and Foundations of Education, Educational Research Methodology,

Elective courses: Sociology of Education, Counselling and Special Needs Education, Economics of Education and Finance, Childhood Development and Learning

Semester 2

Core courses: Classroom Pedagogy, Educational Assessment and Statistics, Management of education and School Administration, School Governance System, Research Paper Development, Teaching Practice

Elective courses: Administrative Organizational Behaviour, Human Resource Development in Educational Organization, Philosophy of Education

Master of Educational Curriculum and Instruction

The aim of the programme is to produce graduates with capacity to evaluate curriculum, instruction, and aligned assessments and use student data to inform curricular and instructional decisions.

Semester 1

Core Courses: Educational Research Methods and Design, Curriculum Theories and Design, Applied Learning Theories, Foundations of Curriculum and Instruction, Theory and Practice of Pedagogy

Elective Courses: Supervision and Instructional Leadership, Educational Policy Planning and Analysis, Psychology of Child Development and Learning

Semester 2

Core Courses: Educational Measurement and Statistics, Comparative Perspectives on Teaching and Curriculum, Advanced Instructional Technology, Course Design and Materials Evaluation, Curriculum Reforms and Innovation, Dissertation, Research Proposal Development

Elective Courses: Advanced Sociology of Education, Management of Education Systems and Institutions for Teachers, Professional Development for Teachers.

PhD in Education

This programme aims at producing competent researchers who will address critical issues in education and participate in solving social economic problems at local and international levels.





Mizengo Pinda Campus - Katavi

Mizengo Pinda Campus College is one of the college campuses of Sokoine University of Agriculture. The Campus College is named after the retired Prime Minister of Tanzania, Honourable Mizengo Pinda after donating to SUA 26 ha of land with buildings and 81 ha of farmland for training on the 5th of January, 2020. The College is located in Kibaoni Ward, Mpimbwe Council, Mlele District, Katavi Region.

The college offers three programmes namely: Bachelor of Science in Bee Resources Management, Diploma in Crop Production and Management and Certificate in Tour Guide and Hunting Operations.

In the academic year 2020/2021, the campus college registered 105 students for the three programmes as follows: Bachelor of Science in Bee Resources Management had 73 (48 males and 25 females), Diploma in Crop Production and Management had 24 (18 males and 6 females) and Certificate in Tour Guide and Hunting Operations had 8 (7 males and 1 female). Currently, the college has 18 academic and 24 administrative staff.

Mizengo Pinda Campus College has three academic departments namely: the Department of Natural Resources, Management and Conservation, the Department of Agricultural Sciences and the Department of Social Science and Information Communication Technology. Kindly visit <https://www.mizengopinda.sua.ac.tz> for more details about the college, latest activities, projects, and staff profiles



Prof. Josiah Katani
Principal, Mizengo Pinda Campus College

PROGRAMMES HOSTED BY THE DEPARTMENT OF NATURAL RESOURCES, MANAGEMENT AND CONSERVATION

<https://www.mizengopinda.sua.ac.tz/naturalresources>

UNDERGRADUATE PROGRAMMES

Bachelor of Science in Bee Resources Management

The aim of this programme is provide training in Bee resource Management towards maximizing benefits accrued from bees while at the same time contributing to maintenance of the environment. This is done through preparing students for professional positions in the bee resource research and management sectors. Furthermore, it is aimed to create a pool of professional experts in bee resource management; to act as trainers, consultants, researchers, extension workers and entrepreneurs for self-employment.

Semester 1

Core Courses: Basic Entomology, Bee Taxonomy and Biogeography, General Botany, Introduction to Resource Economics, Introduction to Surveying and Mapping

Elective Courses: Communication Skills I, Basic Mathematics, First Aid and Emergency Care

Semester 2

Core Courses: Taxonomy of Higher Plants, Fundamentals of Ecology, Computer Applications, Basic Statistics in Resources, Conservation and Management, Communication Skills II

Elective Courses: Integrated Ecosystems Assessment, Introduction to Agribusiness, Principles, Theories and Contemporary Issues of Development

Semester 3

Core Courses: Bee Biology and Behaviour, Pollination ecology and global change, Bee Products, Biochemistry and Services, Bees Management, Principles of Food Processing and Preservation

Elective Courses: Ecological Impact Assessment and Environmental planning, Resource Economics, Communication Skills I

Semester 4

Core Courses: Beekeeping I: Gear and Techniques, Bee Health and Protection, Beekeeping II: Bee Products Harvesting, Processing and Value Addition, Bee Breeding, Integrated Pest and Pollinator Management, Agroforestry

Elective Courses: Natural Resource and Environmental Economics, Climate Change

Semester 5

Core Courses: Bee Reserve Management Planning I, Bee Resource Entrepreneurship and Innovation, Resource Policy, Legislation and Land Use Economics, Processing Plant Design and Hygiene, Research Project I: Research Methods and Proposal Development

Elective Courses: Forest Protection, Biodiversity Measuring and Monitoring, Systems Equipment Design and Selection, Communication Skills I

Semester 6

Core Courses: Bee Reserves Management Planning II, Extension Education in Nature Conservation, Trading and Marketing of Bee Products, Principles of Administration & Management, Research Project II

Elective Courses: Introductory Marketing and Financial Accounting, Ecological Restoration, Unit Operations I

Career Opportunities

Graduates of this degree programme work as Bee resource managers, conservationists, ecologists, Bee product processors, Bee ecologists and Bee resource and product entrepreneurs in Government Institutions such as Tanzania Forest Services (TFS), Tanzania Forest Research Institute (TAFORI) and Tanzania Wildlife Research Institute (TAWIRI), NGOs and Private Institutions such as The Nature Conservancy

Certificate in Tour guiding and Hunting Operations

The aim of this programme is produce competent graduates that are able to understand and apply concepts and principles of tour guiding and hunting operations and use them in guiding, hunting, trophy preparation, stuffing and mounting, effectively describe and sell tourism resources and services to tourists through competent communication, apply entrepreneurship knowledge and skills in tour guiding and hunting operations

Semester 1

Core Courses: Introduction to Tourism, Principles and Practices, Basic Communication Skills, Elementary French, Customer Care and Interpersonal Skills, Computer Application in Tour Guiding and Hunting Operations, First Aid Management, The Mammals of Tanzania, The Birds of Tanzania, The reptiles and amphibians of Tanzania

Elective Courses: MIS in Application in Tour Guiding and Hunting, Administrative and Leadership Skills, Tour operations in guiding

Semester 2

Core Courses: Tour Guiding Skills and Interpretation Techniques, Professional Tourism Hunting and Safari, Tourism Hunting Entrepreneurship, Trophy Preparation, Stuffing and Mounting (Taxidermy), Fire arms in tourism hunting, Vegetation and Plants of Tanzania

Elective Courses: Basics of Wildlife and Tourism Laws, Protected areas and tourism destinations, Conservation Statistics

Career Opportunities

The Graduates of this programme work as Tour guides, Tour operators, Taxidermists, Hunting experts as well as entrepreneurs in the Tourism industry. Prospective employers include Government agencies in the industry of tourism, NGOs and private companies including Tour companies, Taxidermy academies/companies and Hunting companies.

PROGRAMMES HOSTED BY THE DEPARTMENT OF AGRICULTURAL SCIENCES

UNDERGRADUATE PROGRAMMES

<https://www.mizengopinda.sua.ac.tz/agriculture>

Diploma in Crop Production and Management

The aim of this programme is to provide training in Crop Production and Management and contribute in improving the performance of the agricultural sector in terms of production among smallholder farmers, which traditionally has remained low for many years. Generally, this programme aims at producing field officers or/and technicians who are competent in the field of agriculture sector and who are capable of addressing relevant problems and challenges affecting the industry.

Semester 1

Core Courses: Principles of Crop Production, Introduction to Biostatistics, Introduction to Genetics, Fundamentals of soil science, Irrigation Technology

Elective Courses: Gender roles in Agriculture, Botany, Communication skills, Agro-meteorology

Semester 2

Core Courses: Soil Fertility Management and Plant Nutrition, Annual Crops Production, Farm Machinery, Agriculture Extension, Farm Management, Fertilizer use and Management

Elective Courses: Application of ICT in Agriculture, Concepts in Agro-ecology

Semester 3

Core Courses: Plant Breeding and Biotechnology, Basics of Pest Management, Perennial Crops Production, Post-harvest Handling of Agriculture Produce, Farm Skills I

Elective Courses: Introduction to Human Nutrition, Entrepreneurship Skills, Pesticide use and Management

Semester 4

Core Courses: Greenhouse Technology, Horticulture, Seed Production and Technology, Farm Skills II

Elective Courses: Conservation Agriculture, Beekeeping, Principles of Administration

Career Opportunities

The graduates are producers, managers, extension officers and research assistants of modern Agriculture. Prospective employers include the Government Institutions such as Tanzania Agricultural Research Institute (TARI), Ministry of Agriculture, Livestock and Fisheries, NGOs and Private Companies such as The Mtibwa Sugar Estate Limited and Kagera Sugar Estate Limited

RESEARCH, INNOVATION, TECHNOLOGIES, CONSULTANCY AND OUTREACH

<https://www.dprtc.sua.ac.tz>

The fundamental mission of Sokoine University of Agriculture is teaching, research, service (extension, outreach and consultancy), to advance knowledge and serve the public. This page provides an overview of Research, Innovations, Technologies, Consultancy and outreach activities at SUA, more details can be available at <https://www.dprtc.sua.ac.tz> and <https://www.ice.sua.ac.tz>

Research activities at SUA

Sokoine University of Agriculture conduct various research activities that aim at contributing to the national, regional and global developmental agenda in areas of agriculture, forestry, natural resources, animal and public health, nutrition and environment. Our Research policy priorities are focused on finding sustainable solutions and advancing knowledge to address national, African, regional, and Sustainable Development Goals (SDG) related to food security and agriculture, forestry, natural resource management, animal and public health, agribusiness, market and entrepreneurship, education and information technology.



Consultancy Services

Sokoine University of Agriculture has been offering consultancy and advisory services through the college-based consultancy wings. The Bureau of Agricultural Consultancy and Advisory Services (BACAS) has been in operation since 1991 under the College of Agriculture. Similarly, FORCONSULT which is a consultancy wing under the College of Forestry, Wildlife and Tourism has been in existence since 1993. The consultancy unit of the College of Veterinary Medicine and Biomedical Sciences, VETCONSULT, has been operational for more than 20 years.

Currently, the Directorate of Postgraduate Studies, Research, Technology Transfer and Consultancy is mandated to support overall coordination of consultancy activities and advisory services offered by SUA staff. Find more information at <https://www.dprtc.sua.ac.tz/consultancy-services>

Innovation and Technologies

Sokoine University of Agriculture offers innovation and creativity environments to students, staff, and researchers for which all these groups conduct their innovations to add knowledge and skills. Our research agenda responds to the contemporary and emerging needs of agriculture, natural resources and allied sectors. We have strong collaborative research linkages with various stakeholders and researchers within Tanzania, the African region and international communities.

SUA has more than 14 patent grants/breeders' rights in respect to inventions disclosures by SUA-based researchers. Three have already been commercialized. SUA puts much emphasis on protecting IP rights of SUA-based researchers and students while also promoting translation of intellectual assets and innovations into increased benefits to society and improved quality of life. Find out more at <https://www.dprtc.sua.ac.tz/technologies>

Research Publications

Sokoine University of Agriculture hosts four reputable International Scientific Journals that publish articles after rigorous peer review to ensure quality and relevance of articles to preserve science, advance knowledge and inform policy. Each of the four journals has an Editorial Board consisting of scientists from national and international scientific communities in their respective disciplines. These Journals are: Tanzania Journal of Agricultural Sciences (TAJAS), Tanzania Journal of Forestry and Nature Conservation (JTNC), Tanzania Veterinary Journal (TVJ), Journal of Agricultural Education and Extension (JCEE). Publish with Us for local and international dissemination of your research findings. Find more information at <https://www.dprtc.sua.ac.tz/journal-publications>

National Carbon Monitoring Centre (NCMC)

The National Carbon Monitoring Centre was established in 2016 with the objective of building the national capacity to measure, verify and report adequately on carbon emissions at national and international level. It is a vehicle for reporting on carbon stocks and their changes as well as coordinating the national MRV-processes for the Government of Tanzania. The goal of the Centre is to enable Tanzania to actively participate and benefit from possible future international carbon trading mechanisms to reduce greenhouse gas emissions. Find more at <https://www.ncmc.sua.ac.tz>



National Carbon Monitoring Centre at Edward Moringe Campus

Institute of Pest Management (IPM)

The main mandate of the SUA Institute of Pest Management is to carry out and coordinate pest research activities in crops, animals and humans. Our research activities are broadly destined at understanding the biology and ecology of important vertebrate and invertebrate pests of crops, animals and humans; and eventually developing sustainable technologies and/or strategies to manage such pests. We are deeply proud of the remarkable work our team is doing to acquire knowledge and generate solutions for pest problems in Tanzania and elsewhere in the region. More at <https://www.ipm.sua.ac.tz>

Institute of Continuing Education (ICE)

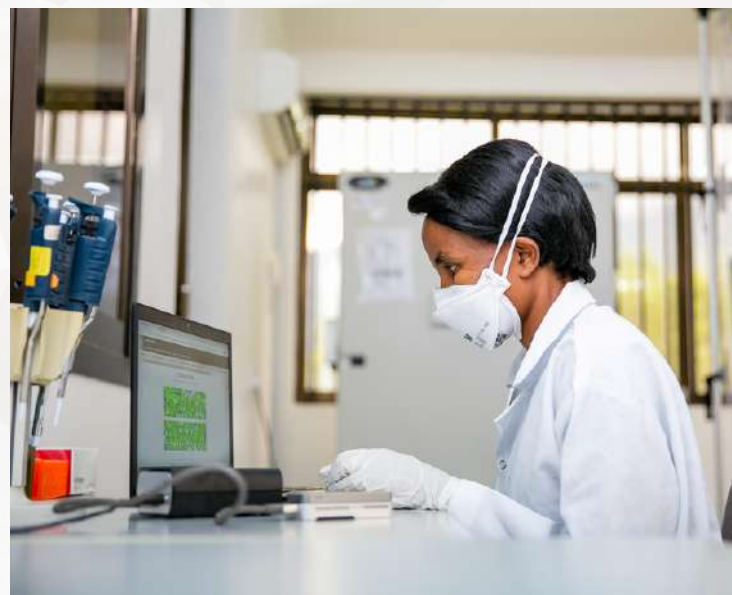
Outreach is one of the key mandates of the Sokoine University of Agriculture (SUA). The fulfilment of this mandate is the responsibility of the Institute of Continuing Education (ICE). The mission of ICE is to promote and coordinate outreach activities as well as continue with community education through collaborative multidisciplinary participatory teams in order to disseminate proven knowledge and technologies. The ICE has other roles of documenting, validating and packaging innovations to suit various categories of clients.

ICE offers designed and tailor-made short courses that cater for a wide range of customers including in-service staff, researchers, policymakers, entrepreneurs, extension workers, farmers, rural development practitioners Community Development Officers, hotel and food vendors, NGOs, Forest Officers, employees preparing for their retirement and the recently retired people. The ICE also offers quality conference facilities for short courses, seminars, workshops, meetings and conferences as well as quality catering and hostel services.

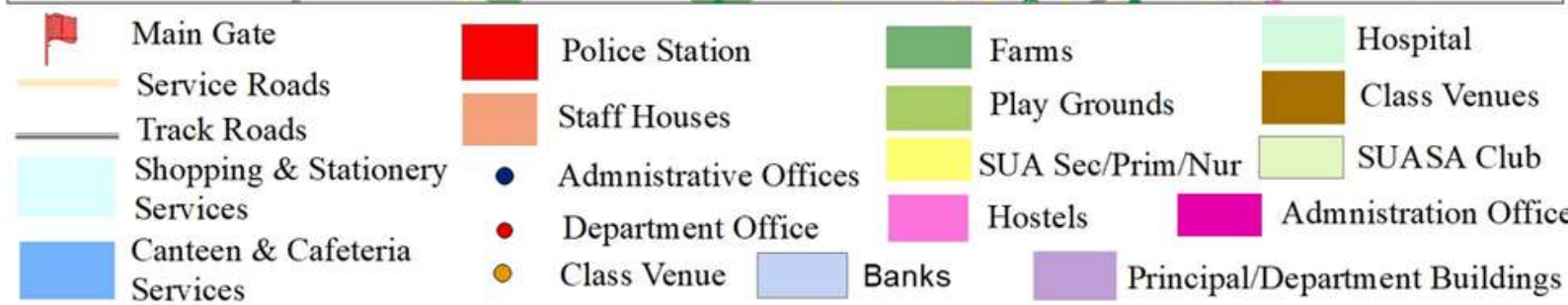
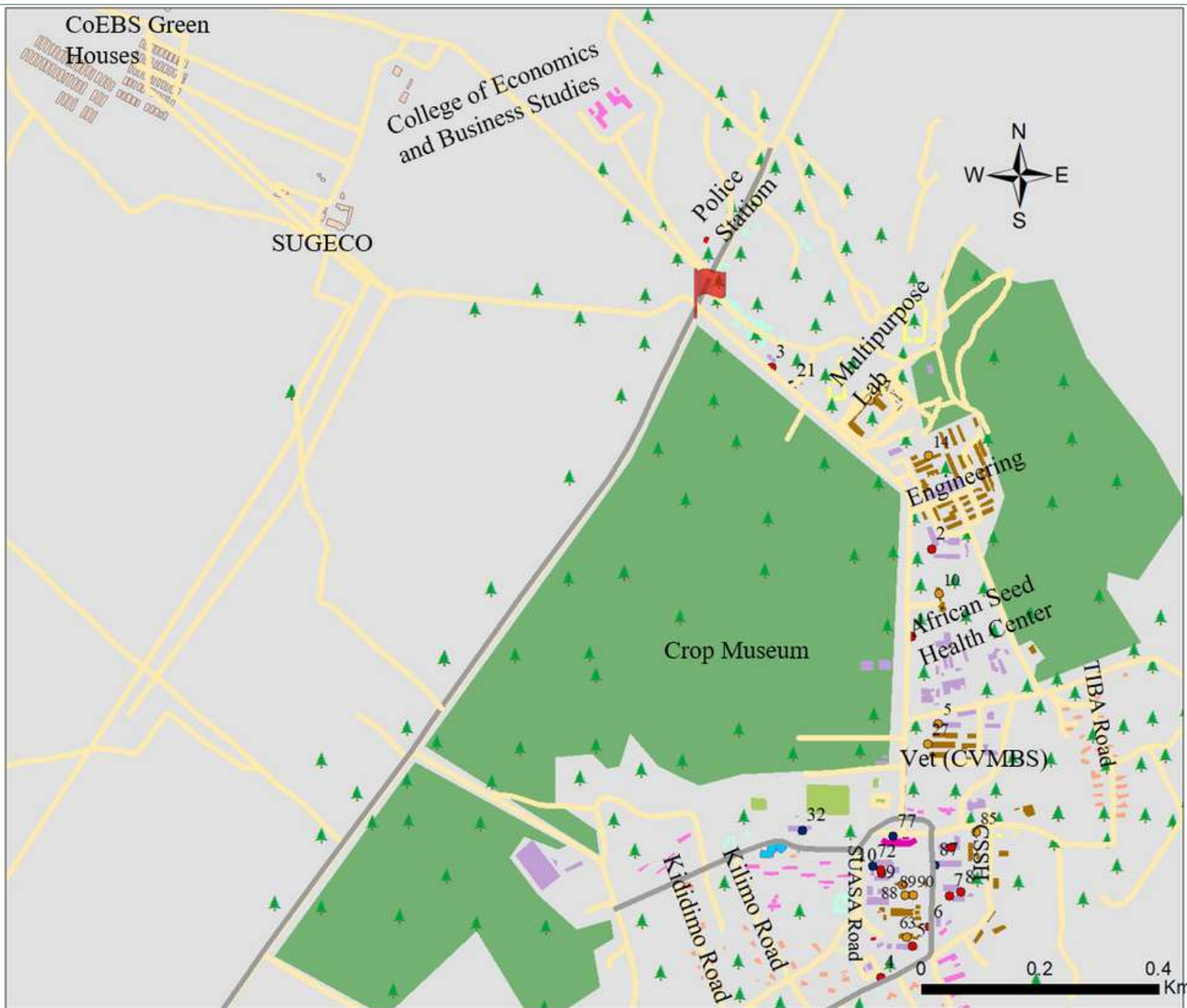
Find out more at <https://www.ice.sua.ac.tz>

SACIDS Foundation for One Health

The SACIDS Foundation for One Health is a ONE HEALTH Virtual Institute that links academic and research institutions in Southern and East Africa, which deal with infectious diseases of humans and animals within the African Ecosystem, in an innovative South-South-North smart partnership with world-renowned centres of research and training. Find more at <http://www.sacids.org>



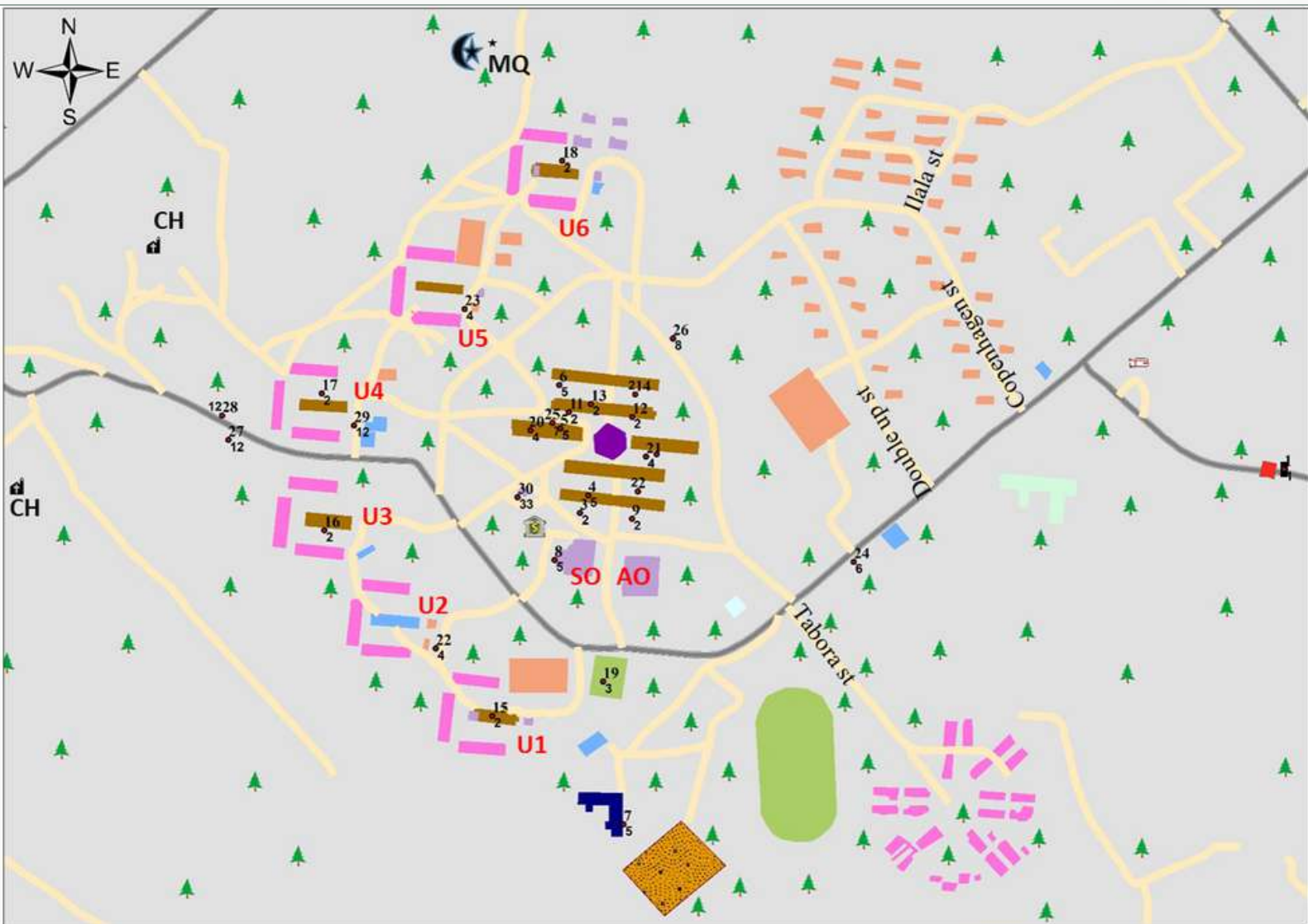
EDWARD MORINGE CAMPUS MAP



Find more details at:

<https://www.sua.ac.tz/maps/edward-moringe-campus>

SOLOMON MAHLANGU CAMPUS MAP



Legend

| | | | |
|--------------------------------|-----------------|------------------|-------------------------------|
| Chemistry New Lab | Police Station | Staff Houses | Administrative Offices |
| Service Roads | Social Services | Football pitch | Nelson Mandela Freedom Square |
| Shopping & stationery Services | Track Roads | Cemetary | Hospital |
| Canteen & Cafeteria Services | Bridge | Basketball court | Hostels |
| | | Streets | Class Venues |

Find more details at:

<https://www.sua.ac.tz/maps/solomon-mahlangu-campus>

KEY CONTACT ADDRESSES

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POPULAR WEB LINKS

College of Agriculture
<https://www.coa.sua.ac.tz>
College of Veterinary Medicine and Biomedical Sciences
<https://www.cvmbs.sua.ac.tz>
College of Forestry, Wildlife and Tourism
<https://www.cfw.t.sua.ac.tz>
College of Economics and Business Studies
<https://www.coeb.sua.ac.tz>
College of Natural and Applied Sciences
<https://www.conas.sua.ac.tz>
College of Social Sciences and Humanities
<https://www.cssh.sua.ac.tz>
School of Engineering and Technology
<https://www.soet.sua.ac.tz>
School of Education
<https://www.soe.sua.ac.tz>
Mizengo Pinda Campus College - Katavi
<https://www.mizengopinda.sua.ac.tz>

SUA Online Application system
<https://www.sua.ac.tz/apply>
Undergraduate Programmes Fees structure
<https://www.sua.ac.tz/fees/undergraduate>
Postgraduate Programmes Fees Structure
<https://www.sua.ac.tz/fees/postgraduate>
Scholarships opportunities
<https://www.sua.ac.tz/scholarships>
Academic Calendar (Almanac)
<https://www.sua.ac.tz/almanac>
University Policies
<https://www.sua.ac.tz/policies>
Admission regulations for undergraduate students
<https://www.dus.sua.ac.tz/regulations>
Admission regulations for Postgraduate students
<https://www.dprtc.sua.ac.tz/regulations>
Student By-Laws
<https://www.dos.sua.ac.tz/by-laws>
Staff Profiles
<https://www.sua.ac.tz/staff-profiles>

ACKNOWLEDGEMENTS

We thank all staff and students who helped to produce this prospectus.

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Produced by
The Office of the Deputy Vice Chancellor (Academic, Research and Consultancy)
Sokoine University of Agriculture (SUA)
November 2021

Edward Moringe Campus in Morogoro



For General Information
www.sua.ac.tz



Multipurpose Laboratory Building at Edward Moringe Campus