JOMO KENYATTA UNIVERSITY
OF
AGRICULTURE AND TECHNOLOGY
COLLEGE OF ENGINEERING AND TECHNOLOGY (COETEC)

ADVERTISEMENT FOR SELF-SPONSORED DEGREE PROGRAMMES IN THE COLLEGE OF ENGINEERING AND TECHNOLOGY (COETEC)

"SEPTEMBER 2023 INTAKE"

Jomo Kenyatta University of Agriculture and Technology (JKUAT) invite applications for admission into the following programs in the College of Engineering and Technology (COETEC).

COURSES OFFERED AT COETEC:

School of Electrical, Electronic and Information Engineering (SEEIE)

1. Bachelor of Science in Electrical and Electronic Engineering *(5-Years)*
2. Bachelor of Science in Electronic and Computer Engineering *(5-Years)*
3. Bachelor of Science in Telecommunication and Information Engineering *(5-Years)*

School of Civil, Environmental and Geospatial Engineering (SCEGE)

1. Bachelor of Science in Civil Engineering*(5-Years)*
2. Bachelor of Science in Geospatial Information Science *(4 Years)*
3. Bachelor of Science in Geomatic Engineering and Geospatial Information Systems *(5-Years)*

School of Mechanical, Manufacturing and Materials Engineering (SoMMME)

1. Bachelor of Science in Materials and Metallurgical Engineering (5-Years)
2. Bachelor of Science in Aerospace Engineering (5-Years)
3. Bachelor of Science in Mechatronic Engineering *(5-Years)*
4. Bachelor of Science in Mechanical Engineering *(5-Years)*
5. Bachelor of Science in Marine Engineering *(5-Years)*
6. Bachelor of Science in Mining and Mineral Processing Engineering *(5-Years)*

School of Biosystems and Environmental Engineering (SoBEE)

1. Bachelor of Science in Agricultural and Biosystems Engineering *(5-Years)*
2. Bachelor of Science in Chemical Engineering *(5-Years)*
3. Bachelor of Science in Energy and Environmental Technology *(4 years)*
4. Bachelor of Science in Water & Environmental Engineering *(5 years)*
5. Bachelor of Science in Water & Environment Management *(4 years)*
6. Bachelor of Science in Aquaculture Technology (AQT) *(4years)*

School of Architecture and Building Sciences (SABS)

1. Bachelor of Construction Management *(4 years)*
2. Bachelor of Quantity Surveying *(4 years)*
3. Bachelor of Real Estate *(4 years)*
4. Bachelor of Architectural Studies/ Bachelor of Architecture; *(4/6 Years)*
5. Bachelor of Landscape Architecture; *(4 Years)*
6. Diploma in Architecture (Dip. Arch.)

NB: All Schools also offer Masters and PhDs in the various areas of specialization.

ELIGIBILITY:

a) The following shall be eligible for consideration for admission into the degree programme in Engineering:-
   (i) KCSE (O-level) mean of C+ (plus) and the following minimum grades in the individual cluster subjects:- Mathematics C+(plus), Physics C+(plus), Chemistry C+(plus), English/Kiswahili C+ (plus), and C+ (plus) in any of the subjects in Group II, III, IV,V; NB: for BSc. in GEGIS/GIS, Geography C+ (plus) is also required. OR
   (ii) KACE (A-level) with at least 2 principal passes in Mathematics and Physics; with a total score of at least nine (9) points, and at least 1 credit pass in Chemistry at the KCE or its equivalent; OR
   (iii) Ordinary Diploma from institution recognized by the JKUAT Senate, having been awarded by JKUAT or, by the Kenya National Examinations Council (KNEC), or any other external examinations body recognized by the University Senate as being of equivalent status. In addition, the diploma holder must have had satisfactory mean/subject grades at O-level or equivalent; OR
   (iv) A holder of any other qualifications recognized by the University Senate as equivalent to (i), (ii) or (iii) above.

b) The following shall be eligible for consideration for admission into the degree programmes in the School of Architecture and Building Sciences. As listed below:-
   (i) KCSE (O-level) mean of B- (minus) and minimum grade of C+(plus) in 4 individual cluster subjects which include: *Mathematics, Physics*, any subject from Group III (History and Government/Geography/CRE/IRE/HRE; OR 2nd Group II (Biology/Chemistry); OR 2nd Group III OR Group IV (Home Science/Art and Design/Agriculture/Aviation Technology/Computer Studies); OR Group V (French, German, Arabic, Music, Business Studies); OR Any other relevant qualification recognized by the University Senate.
   (ii) ***Bachelor of Architectural Studies/Bachelor of Architecture (for Diploma holders only):*** Holder of JKUAT Diploma in Arch. with Credit and above and 12 months refereed industry/travel portfolio (entry into 3rd year of study) OR Holder of JKUAT Diploma in Arch. With a PASS and 24 months refereed industry/travel portfolio (entry into 1st year of study)
   (iii) ***Diploma in Architecture****:* KCSE (O-level) mean of C(plain) plus grades C-(minus) in English/Kiswahili, Mathematics, Physics, Geography or Drawing and Design or Art and Design or History and Government or Chemistry OR KACE with one (1) Principal Pass in Mathematics or Physics and two (2) subsidiary passes or other equivalent qualifications as approved by the University Senate.

DURATION OF PROGRAMMES:

- Engineering programmes takes a minimum of **5 Years** inclusive of mandatory industrial attachments;
- Architecture and Built environment related programmes take a minimum of **4 Years** inclusive of mandatory industrial attachments;
- Architecture programme takes 6 years minimum to complete inclusive of mandatory industrial attachments;

Note: Students of Architectural Studies (4 years) pursue Bachelor of Architecture for a further 2 years upon graduation.

MODE OF APPLICATION:

a) Admission into Engineering and Built Environment related courses at JKUAT is only undertaken once in every calendar year – September intakes. We receive and process applications made between the months of February up to and including August.
b) Application forms can be obtained upon payment of a non-refundable application fee of KShs. 1,500/- (paid at any of the listed University bank account(s) including Absa Bank Acc. No. 0775001216; Co-operative Bank Acc. No. 01129098952900; Equity Bank Acc. No. 0090291251426 and KCB Acc. No. 1107589177 OR main Finance office, Juja ca0mpus).
c) Fully filled application forms, application fee payment slip, copies of academic qualifications and a copy of national ID/Birth certificate/valid passport should be returned for processing at the Office of the Principal, CoETEC, JKUAT, Main campus, Juja through the address:
d) Application Deadline for the September 2023 intake is Friday, 4th August, 2023.

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Office of the Principal,
College of Engineering and Technology (COETEC), JKUAT
Engineering Main Building (EMB), 1st Floor.
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Tel. 067-5870001-4 Ext. 2110/2111/2113/2114
Email: principal@eng.jkuat.ac.ke
Website: http://www.jkuat.ac.ke

BRIEF DESCRIPTION OF THE PROGRAMS:

BSc. in Civil Engineering
Technical training in the fields of structural, geotechnical, high transportation, environmental and water engineering.

BSc. in Geomatic Engineering and Geospatial Information Systems (GEGIS)
Use of modern engineering tools to practice the science of measurement; to acquire, assess, process, analyze and present land and geo-referenced information for the purpose of planning and implementing the efficient administration of the land, the sea and structures thereon.

BSc. in Geospatial Information Science (GIS)-4 year programme
GIS brings together the disciplines of computing, surveying, mapping, cartography and visualization, with emphasis on modern techniques of geodesy, digital mapping, Remote Sensing, cartography, and GPS.

BSc. in Electrical and Electronic Engineering
A systematic and analytic approach to electrical and electronic engineering to enable them to carry out design and research work specializing in either light current or heavy current option.

BSc. in Electronic and Computer Engineering
Gives a combination of expertise from computer science, computer engineering, software engineering, electronic systems and electronic components to design and maintain electronic and computer systems.

BSc. in Telecommunication and Information Engineering
Provide access to many of the new technologies of mobile, radio, rural and remote communication facilities for voice, data, facsimile, email, internet and video/data.

BSc. in Mechanical Engineering
Emphasize on application of mechanical engineering concepts particularly in design and manufacturing mainly in automotive or production engineering.

BSc. in Mechatronic Engineering
Give a thorough understanding of modern engineering and manufacturing combined with specialist skills in electronics and computer based technology.

BSc. in Materials and Metallurgical Engineering
Activities range from primary materials production, including recycling, design and development of new materials, reliable and economical processing/manufacturing for the final product.

BSc. in Aerospace Engineering
Specialized in the design, production, and maintenance of aircrafts useful within and beyond the earth's atmosphere.

BSc. in Marine Engineering
Provide qualified manpower that can develop and maintain ship propulsion units, ship structures and all support machinery, as well as initiate manufacturing projects or improve existing maritime operations

BSc. in Mining and Mineral Processing Engineering
Process of taking mineral resources from the earth in response to man's need and separating valuable elements of material from unwanted waste material from the ore body, in the most economical way.

BSc. in Agricultural and Biosystems Engineering
Experts in bio-processing systems design, design and production of bio-processing machines and structures, waste management, irrigation and drainage engineering, soil and water conservation and environmental management.

BSc. in Water and Environmental Engineering
Aim to produce scientists with skills for sustainable water resources development and management by developing innovative and sustainable solutions to water resources challenges such as water scarcity and pollution.

BSc. in Water and Environmental Management
Aim at producing graduates with the necessary knowledge and skills for sustainable land development and natural resources utilization.

BSc. in Energy & Environmental Technology
Experts in sustainable exploitation and utilization of natural resources, especially harnessing and management of energy systems.

BSc. in Chemical Engineering
Chemical engineers are experts in areas of energy, environment, biomedicine, electronics, food production, and materials.

BSc. in Aquaculture Technology
Graduates with skills for sustainable utilization and development of aquaculture resources in production systems to boost food security and nutrition.

Bachelor of Architectural Studies
This is the First part of the Two-Tier programme comprising the Bachelor of Architectural Studies (4 Years) and the Bachelor of architecture (2 Years). It concerns both planning and designs of the built and natural environment. Emphasis is on art approach to

design. Graduates can work as assistants to registered Architects, Project Managers, Contractors,, be part of project implementation teams; or pursue other professional degrees in design-related fields such as interior design, product design as well as Architectural Conservation;

Bachelor of Architecture

This course is the second part of the Two-Tier programme comprising the Bachelor of Architectural Studies (4 Years) and the Bachelor of Architecture (2 Years). Upon Successful completion, one can take up the following career path for registration as an Architect:- Work as Graduate Architects under supervision of a Registered Architect; Be registered by the Board of Registration of Architects and Quantity Surveyors (BORAQS) as Architects upon successful completion of internship and passing a professional examination; Become a corporate members of Architectural Association of Kenya (AAK) after application and upon registration as an Architect by BORAQS.

Bachelor of Construction Management

Construction Management as a practice involves overall planning, coordination and control of a construction project for timely completion within the Client's budget. Student are trained in all aspects of construction processes and management from building through services engineering to infrastructure services (roads, water, waste water, ICT etc) and quantifying of construction projects. Graduates can work in Building and civil engineering contractors, Architectural firms, Project management, Engineering firms, Project evaluation and costing firms, Quantity surveying firms, Contracting and consultancy, Sales and marketing, Production and manufacturing companies (maintenance), Property and facilities management, Energy sectors, Roads, Banking industries e.g mortgages.

Bachelor of Quantity Surveying

Quantity surveyors manage the costs on a construction project. They help to ensure that the construction project is completed within its projected budget. Depending on the stage of the project and their employer, they might:

(i) price/forecast the cost of the different materials needed for the project
(ii) prepare tender documents, contracts, budgets, bills of quantities and other documentation
(iii) track changes to the design and/or construction work and adjust budget projections accordingly
(iv) procure or agree the services of contractors and/or subcontractors who work on the construction of the project
(v) measure and value the work done on site
(vi) pay subcontractors
(vii) liaise with the client and other construction professionals, such as site managers, project managers and site engineers
(viii) select and/or source construction materials
(ix) write reports.

Graduates can work in Building and civil engineering contractors, Architectural firms, Project management, Engineering firms, Project evaluation and costing firms, Quantity surveying firms, Contracting and consultancy, Sales and marketing, Production and manufacturing companies (maintenance), Property and facilities management, Energy sectors, Roads, Banking industries e.g mortgages.

Bachelor of Real Estate

A degree in Real Estate prepares graduates for work in property management (property administration, valuations, etc).
Bachelor of Real Estate programme acquaints students with the specifics of real estate law in relation to commercial, rental and private property. Helps students develop marketing strategies and introduces them to real estate investing.
Graduates can work in Building and civil engineering contractors, Architectural firms, Project management, Engineering firms, Project evaluation and costing firms, Quantity surveying firms, Contracting and consultancy, Sales and marketing, Production and manufacturing companies (maintenance), Property and facilities management, Energy sectors, Roads, Banking industries e.g mortgages.

Bachelor of Landscape Architecture

Landscape Architecture is an environment based profession. Basically, to develop a taste for beauty, admiration for surrounding natural world, appreciation of natural environment habitats and at the same time a rejection of selfish oriented consumption attitudes. Focus majorly in: Architectural Communication, Planting Design, Site Planning, Landscape Engineering and Urban design. Our graduates work in urban planning, conservation agencies, governments and the private sector.

"More details can be obtained at http://www.jkuat.ac.ke/colleges"