

About Us

Kenya Methodist University (KeMU) is a Chartered Christian University, with the main campus situated in Meru and other campuses at Nairobi, Mombasa and Meru Town Center. KeMU offers PhD, Masters, Degree, Diploma and Certificate programmes. Our market driven courses, industry linkages and opportunities outside classroom provide positive career outcomes for our students in their chosen fields.

At KeMU we place a strong emphasis on a holistic approach to education that fosters character, values, and skills that extend far beyond the lecture hall.

We offer a diverse range of academic programs and extracurricular activities to cater to the unique interests and talents of our students.

Since our founding over 26 years ago, we continue to shape not only intellectually sound students, but also individuals who are truly grounded spiritually and physically, ready to serve our nation and the whole world.

Application Procedure

Application forms are available at all our Main campus-Meru, Nairobi, Mombasa & Meru Town Center.

You can download the application forms from the university website www.kemu.ac.ke



The future is here



KeMU
Kenya Methodist University



Bachelor of Science in Cybersecurity and Ethical Hacking

About the program

The Bachelor of Science in Cybersecurity and Ethical Hacking program is designed to equip the learners with the knowledge, skills and attitudes required to address the ever-evolving landscape of Information Communication Technology Cyber Threats. Its primary goal is to develop and provide researched solutions that provide comprehensive protection to information Communication technology (ICT) ecosystem with the aim of guaranteeing Confidentiality, Integrity and availability of ICT resources.

Graduates of this program can pursue any of following careers that are of high demand in the current technological world:

- Cybersecurity Analyst
- Information Security Specialist
- Systems Security Administrator
- Cloud Security Specialist
- Blockchain Security Expert
- Information Systems Auditor
- Penetration Testing Expert (PenTester)
- Forensic Analyst

Admission Requirements

- A mean grade of C+ and above in KCSE with at least grade C plain in English and a C plain in Mathematics or Physics.
- Diploma in Information Technology or Diploma in Business Information Technology or Diploma in Computer Information Systems or professional qualifications from an institution recognized by the University Senate.

Mode of Delivery of the Program

The Bachelor of Science in Cybersecurity and Ethical Hacking is offered on full time, part time, Open and Distance Learning modes.
Taught purely in English

Program Learning Outcomes

By the end of this program, the learner will be able to:

1. Identify cyber security risks and vulnerabilities.
2. Perform Ethical Hacking using appropriate tools, techniques and standards.
3. Protect an organization's ICT assets from external and internal threats.
4. Develop Cybersecurity and Ethical Hacking policies and strategies
5. Develop Business Continuity Plans

Credit Transfer

A Learner may be allowed to transfer not more than 49% credits if the senate is satisfied that the candidate has completed and passed the prescribed courses(s) at the undergraduate level from accredited institutions and programs recognized by the senate. Any course considered for credit transfer must have been completed with a minimum grade of 50%.

Total credit hours and course units required for graduation

Total credit hours and course units required for graduation The program shall be offered in 9 trimesters (3 Academic Years). The minimum total courses for the program are 49.

The minimum total course credit hours required for graduation is 150 hours.

YEAR 1

Trimester 1

Unit Code:	Course Title:	CH
COMM 111	Communication Skills	3
BUSS 114	Entrepreneurship	3
THEO 111	Christian Beliefs	3
MATH 102	Foundations of Mathematics	3
HSCI 225	HIV/AIDS	3
BCEH 111	Introduction to Computer Systems and Security	3

Trimester 2

Unit Code:	Course Title:	CH
BCEH 121	Operating Systems Security	3
BCEH 122	Database Systems	3
BCEH 123	Differential and Integral Calculus	3
BCEH 124	Introduction to Programming	3
BCEH 126	Introduction to Cybersecurity and Digital Forensics	3
MATH 132	Probability and Statistics I	3

Trimester 3

Unit Code:	Course Title:	CH
BCEH 211	Computer Networks	3
BCEH 212	Computer Systems Architecture	3
BCEH 213	Physics for Computing Systems and Digital Electronics	3
BCEH 214	Human Psychology and Philosophy	3
MATH 110	Linear Algebra	3
ENVI 201	Environmental Science	3

YEAR 2

Trimester 1

Unit Code:	Course Title:	CH
BCEH 221	Software Engineering	3
BCEH 222	Digital Forensics and Investigations	3
BCEH 223	Digital Forensics Tools and Technologies	3
BCEH 224	Introduction to Machine Learning	3
BCEH 215	Internet of Things (IoT) Security	3
MATH 211	Discrete Mathematics	3

Trimester 2

YEAR 2

Unit Code:	Course Title:	CH
BCEH 312	Penetration Testing and Ethical Hacking	3
BCEH 313	Distributed Systems	3
BCEH 314	Intrusion Detection and Prevention Techniques	3
BCEH 315	Systems Forensics	3
BCEH 316	Research Methods	3
Elective	Elective-1	3
ELECTIVE(1)		
BCEH 317	Blockchain and Cryptocurrency Security	3
BCEH 318	Advanced Penetration Testing	3
BCEH 319	Threat Intelligence and Analysis	3
BCEH 311	Network Design and Management	3

Trimester 3

Unit Code:	Course Title:	CH
BCEH 321	Cryptography and Steganography	3
BCEH 322	Malware Detection and Analysis	3
MATH 230	Probability and statistics II	3
BCEH 326	Computer Network Security	3
Elective	Elective 2	3
Elective	Elective 3	3
ELECTIVES (2)		
BCEH 327	Social Engineering and Psychological Exploits	3
BCEH 328	Reverse Engineering and Malware Analysis	3
BCEH 329	Mobile Application Security	3
BCEH 330	IoT and Embedded Systems Security	3
BCEH 325	Distributed Databases	3
BCEH 324	Web Security and Privacy	3

YEAR 3

Trimester 1

Unit Code:	Course Title:	CH
BCEH 411	Information Systems Control and Audit	3
BCEH 413	Artificial Intelligence	3
BCEH 416	Security Analytics and Visualization	3
BCEH 417	Incident Response and Recovery	3
Elective	Elective 4	3
Elective	Elective 5	3
ELECTIVES (2)		
BCEH 418	Secure DevOps (DevSecOps)	3
BCEH 430	Game Theory in Cybersecurity	3
BCEH 431	Ethical Hacking with AI and Machine Learning	3
BCEH 412	Secure Software Development	3
BCEH 414	Database Management Systems Security	3
BCEH 415	Cloud Computing Security	3

Trimester 2

YEAR 3

Unit Code:	Course Title:	CH
BCEH 422	Advanced Information Security Management	3
BCEH 423	Emerging Cybersecurity Technologies and Digital Forensics Bootcamps	3
BCEH 424	Systems Security Risk Management	3
BCEH 425	Simulation and Modelling	3
BCEH 426	Cybersecurity Governance Laws, Policy and Ethics	3
BCEH 427	Digital Markets Architecture and Security	3
BCEH 428	Research Project-Proposal	3

Trimester 3

Unit Code:	Course Title:	CH
BCEH 428	Research Project-Execution	3
BCEH 429	Industrial Attachment-External	



Scan to apply



Contact Us

Meru: +254724256162

Nairobi: +254725751878

Mombasa: +254743084019

Email: info@kemu.ac.ke