KENYA MEDICAL TRAINING COLLEGE

Faculty of Clinical Sciences

Department of Orthopaedics & Trauma Medicine

COURSE OUTLINE

For Certificate
In
Orthopaedics & Trauma Medicine

2018

KENYA MEDICAL TRAINING COLLEGE
DEPARTMENT OF ORTHOPAEDICS & TRAUMA MEDICINE

Course Outline
For
Certificate Course In Orthopaedic &Trauma Medicine

Lecturer's Details

Name:	
Qualifications:	
Phone Number:	
Email address:	
Signature:	
Date:	

Course Outline for Anatomy I

Code: **ANT 106**

Hours: **60**

Credit: **6**

Competence

Enable the learner apply principles of Anatomy in relation to diagnosis of orthopaedic and trauma patients.

Outcomes

1. Demonstrate understanding of terminologies and historical background of anatomy
2. Explain the organization of human body
3. Explain various body tissues
4. Explain the structural organization of the skin and body cavities

5. Demonstrate the understanding of anatomical organization of the lower limb

Content Delivery

Week	Dates		Unit
	From	**To**	
Week 1:			**Introduction to anatomy**
Week 2:			Introduction to anatomy
Week 3			Levels of body organization;
Week 4			Levels of body organization;
Week 5:			Levels of body organization;
Week 6:			Body tissues
Week 7:			Body tissues
Week 8:			Body tissues
Week 9:			**CATs,**
Week 10:			Lower limb
Week 11			Lower limb
Week 12:			Lower limb
Week 13:			Lower limb
Week 14:			Lower limb
Week 15:			Lower limb
Week 16:			Lower limb
Week 17:			Study Week
Week 18:			**End of Semester Examinations**

Module Content

Introduction to anatomy; definition of anatomy, historical background, terminologies, anatomical position, classification of human being, methods of study**. Levels of body organization;** chemical level, cell and cell structures, cell division. **Body tissues;** classification of body tissues, muscle, connective tissue (bone and bone development), nerve tissue. **Skin and body cavity;** Skin as organ system, body cavities. **Lower limb;** bones of the lower extremities and pelvis, muscles of the lower extremities and pelvis, nerves, joints of lower extremities and pelvis, blood supply to lower extremities and pelvis, arches of the foot

Teaching Strategies

Interactive/modified lectures, small group demonstrations, video interactions and small group discussions

Teaching/Learning Resources

Laptop, computers, projectors, whiteboards, maker pens, lesson plans, recommended textbooks, models and PowerPoint slides

Assessment Strategies

Formative: CAT(s) accounts for 40% of the total marks

Summative: End of Semester Examinations accounts for 60% of the total marks

References/Further Readings

Romanes, J. (2010). *Cunningham's Manual of Practical anatomy Vol.1, 2 and 3*, London: Oxford University Press.

Waugh, A. and Grant, A. (2011). *Ross and Wilson Foundation of Anatomy and Physiology in health and illness* 11th ed., Edinburgh: Churchill Livingstone.

Drake, R. L., Vogl, A. W. and Adam, M. W. M. (2015). *Gray's Anatomy for Students*, 3rd ed., London: Churchill Livingstone Elsevier

Prepared By: Name: _____

Signature: _____

Date: _____

Approved By: Name: _____

Signature: _____

Date: _____

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Name:	
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Course Outline for Physiology I

Code: **PHY 103**

Hours: **30**

Credit: **3**

Competence

Enable the learner to diagnose the orthopaedic and trauma conditions and manage them non-operatively.

Outcomes

1. Demonstrate understanding of the cellular organelles functioning
2. Relate the role of body fluids compartment in regulating body electrolytes

3. Demonstrate understanding of functioning of the cardiovascular system
4. Explain functions of musculo-skeletal system
5. Relate functions of nervous system with other body systems
6. Explain the role of the integumentary system in the body

Content Delivery

Week	Dates		Unit
	From	**To**	
Week 1:			Introduction to physiology;
Week 2:			Introduction to physiology
Week 3			Introduction to physiology
Week 4			Body fluids
Week 5:			Body fluids
Week 6:			Body fluids
Week 7:			Cardiovascular system
Week 8:			Cardiovascular system
Week 9:			**CATs,**
Week 10:			Musculo-skeletal system;
Week 11			Musculo-skeletal system
Week 12:			Nervous system
Week 13:			Nervous system
Week 14:			Nervous system
Week 15:			Integumentary system
Week 16:			Integumentary system
Week 17:			Study Week
Week 18:			**End of Semester Examinations**

Module Content

Introduction to physiology; definition, cell types, cell organelles function, transport across cell membrane, homeostasis, cell metabolism. **Body fluids;** compartments, fluid balance, electrolytes, regulation, acid/base balance. **Cardiovascular;** the heart, cardiac cycle, conduction, heart conditions; blood vessels, blood pressure and control. **Musculo-skeletal system**; definition, types of muscles, functions of the muscles, neuro-muscular junction,contractile process. **Nervous system**; introduction to nervous system, division, the brain, the neurons, impulses, action potential, synapse, functions of the central nervous system, peripheral nervous system,

autonomic nervous system. **Integumentary system**; the skin, the hair, the nails, the glands, subcutaneous tissue.

Teaching Strategies

Interactive /modified lectures, small group demonstrations, small group discussions

Teaching/Learning Resources

Flip chart, marker pens, masking tape, note books and pens, LCD projector, laptops, models, interactive videos.

Assessment Strategies

Formative: CAT(s) accounts for 40% of the total marks

Summative: End of Semester Examinations accounts for 60% of the total marks

References/Further Readings

Barret, K. E. et al. (2016). Ganong's review of medical physiology 25th ed., New Delhi: McGraw Hill Education

Hall, J. E. (2011). Guyton and Hall textbook of medical physiology 12th ed., Philadelphia: Saunders Elsevier

Sembulingam, K. and Sembulingam, P. (2012). *Essentials of Human Physiology* 6th Ed. New Delhi: Jaypee Brothers medical publishers

Waugh, A and Grant, A. (2011). *Ross and Wilson Foundation of Anatomy and Physiology in health and illness* 11th ed., Edinburgh: Churchill Livingstone

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Signature:	
Date:	

Course Outline for Pathology I

Code: **PAT 103**

Hours: **30**

Credit: **3**

Competence

The module is designed to enable the learner apply principles of Pathology in relation to the management of orthopaedic and trauma patients.

Outcomes

1. Demonstrate understanding of disease mechanism
2. Apply concepts of immunology and inflammation in casting and traction.
3. Relate pathological changes in various systems to clinical presentation
4. Demonstrate understanding of various infectious agents causing pathology in humans

Content Delivery

Week	Dates		Unit
	From	**To**	
Week 1:			Introduction to defence mechanism.
Week 2:			Introduction to defence mechanism.
Week 3			Immunology
Week 4			Immunology
Week 5:			Immunology
Week 6:			Immunology
Week 7:			Immunology
Week 8:			Introduction to general pathology
Week 9:			**CATs,**
Week 10:			Introduction to general pathology
Week 11			Introduction to general pathology
Week 12:			Introduction to general pathology
Week 13:			Infections and infestations
Week 14:			Infections and infestations
Week 15:			Infections and infestations
Week 16:			Infections and infestations
Week 17:			Study Week
Week 18:			**End of Semester Examinations**

Module Content

Introduction; pathology, microbiology, parasitology, disease mechanism-genetic, **Immunology,** cell injury, cell death, necrosis, inflammation, types of immunity-acquired/innate, active/passive, antigen-antibody reaction, immune cells, auto immunity, immunodeficiency. **Introduction to general pathology**: Cell Injury and Inflammation, cardiovascular, respiratory, musculoskeletal, and neurological. **Infections and infestations**: bacteriology-classifications of bacteria and common bacterial diseases, basic virology – classification of common viruses and common viral diseases, basic mycology-classification of fungi and common fungi diseases, basic parasitology-classification of sprotozoa, protozoa, common helmithes. Infection prevention and control-sources of microorganisms, hand washing, decontamination, disinfection, sterilization, antisepsis/asepsis, management of medical waste.

Teaching Strategies

Interactive lectures, small group demonstrations, small group discussions**,** tutorial interactions

Teaching/Learning Resources

Whiteboard, LCDs, Flip Charts, Laptops, Blackboard models, video tapes, marker pens, PowerPoint presentations.

Assessment(s)

Formative: CAT(s) accounts for 40% of the total marks

Summative: End of Semester Examinations accounts for 60% of the total marks

References/Further Readings

Mohan, H. (2010). *Textbook of Pathology with quick MCQs* 6th Edition. London. Jaypee Brothers Medical Publishers (P) Ltd.

Reid, R., Roberts, F. and Macduff, E. (2011). *Pathology Illustrated* 7th Ed., Edinburgh: ChurchillLivingstone

Bhatia, R. (2008). *Essentials of Microbiology.* 24th Ed. New Delhi. Jaypee Brothers.

Arora, R. and Arora, B. (2012). Medical Parasitology. 3rd Edition. New Delhi. CBS publishers and Distributors PVT. Ltd

Cross S. S. and Underwood J.C.E (2004). *General and systematic pathology* 5th Ed., Edinburgh Churchill livingstone

Prepared By: Name: _____
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KENYA MEDICAL TRAINING COLLEGE
DEPARTMENT OF ORTHOPAEDICS & TRAUMA MEDICINE

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Name:	
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Phone Number:	
Email address:	
Signature:	
Date:	

Course Outline for Material Science

Code: **MSC 103**

Hours: **30**

Credit: **3**

Competence

Enable the learner apply principles of materials science in casting and Traction.

Outcomes

1. Classify materials used in management of orthopaedic and trauma conditions.
2. Demonstrate understanding of properties of materials used in management of orthopaedic and trauma patient.
3. Identify tools used in orthopaedic and trauma management

4. Identify equipment used in management of orthopaedic and trauma condition

Content Delivery

Week	Dates		Unit
	From	**To**	
Week 1:			Introduction to Material Science.
Week 2:			Materials
Week 3			Materials
Week 4			Materials
Week 5:			Materials
Week 6:			Materials
Week 7:			Materials
Week 8:			Materials
Week 9:			**CATs,**
Week 10:			Tools
Week 11			Tools
Week 12:			Tools
Week 13:			Tools
Week 14:			Tools
Week 15:			Equipment
Week 16:			Equipment
Week 17:			Study Week
Week 18:			**End of Semester Examinations**

Module Content

Introduction to material science; historical background**,** definitions of terms, **Materials;** definition, properties, Plaster of Paris, fabrics, fibre glass, fasteners and adhesives, rubber and plastics, wood, metals, metal alloys, stainless steels **Tools**; plaster sheer, scissors, oscillating machine, plaster spreader, plaster saw, introducer, hammer, **Equipment**–Orthopaedic bed, splints, walking aids,

Teaching Strategies

Interactive lecture, demonstration, group discussion, video conferencing, Role play

Teaching/Learning Resources

LCDs, Flip Charts, Whiteboard, laptops, text books plaster shears, oscillating machine, spreader, Thomas splint, orthopaedic bed,

Assessment Strategies

Formative: CAT(s) accounts for 40% of the total marks

Summative: End of Semester Examinations accounts for 60% of the total marks

References/Further Readings

Heever, J. (2008). *Material Technology Student's Book*. Northcliff: Macmillan and Troupant Pub. (Pty) Ltd

Lawrence, H. (1973). *A Textbook of Material Technology*. New Delhi: Vlack Addison wesly

William, D. (2007). *Material Science and Engineering*. 7th Edition. New York. Quebercor

Mittemeijer, J. (2011). *Fundamental of Material Science.* University of Stuttgart. German

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KENYA MEDICAL TRAINING COLLEGE
DEPARTMENT OF ORTHOPAEDICS & TRAUMA MEDICINE

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Lecturer's Details

Name:	
Qualifications:	
Phone Number:	
Email address:	
Signature:	
Date:	

Course Outline for Behavioural Sciences

Code: **BHS 103**

Hours: **30**

Credit: **3**

Competence

Enable the learner to provide psychological support at the healthcare facility and community level

Outcomes

1. Relate cultural effects on health and sickness behaviour
2. Demonstrate understanding of how social factors influence health and healthcare delivery
3. Apply principles of psychology in management of orthopaedic and trauma conditions

Content Delivery

Week	Dates		Unit
	From	**To**	
Week 1:			Introduction to medical Anthropology
Week 2:			Introduction to medical Anthropology
Week 3			Introduction to medical Anthropology
Week 4			Introduction to medical Anthropology
Week 5:			Introduction to medical Anthropology
Week 6:			Introduction to medical sociology
Week 7:			Introduction to medical sociology
Week 8:			Introduction to medical sociology
Week 9:			**CATs,**
Week 10:			Introduction to medical sociology
Week 11			Introduction to medical sociology
Week 12:			Introduction to medical psychology
Week 13:			Introduction to medical psychology
Week 14:			Introduction to medical psychology
Week 15:			Introduction to medical psychology
Week 16:			Introduction to medical psychology
Week 17:			Study Week
Week 18:			**End of Semester Examinations**

Module Content

Introduction to medical arthropology; definitions, background and branches, importance, principles and concepts, culture and cultural effects on health, illness and illness behaviour, hospitalization and hospitalization effects. **Introduction to medical sociology**; background, branches, social change, group dynamics, process of instituting social change, basic social

institutions. **Introduction to medical psychology:** historical background, foundations and goals of psychology, schools of thought, branches, relevance of psychology in healthcare practice, human growth and development, learning, memory, motivation and emotions, personality

Teaching Strategies

Interactive lecturers**,** Role plays**, s**mall group discussions

Teaching/Learning Resources

Laptops**,** LCD Projector**,** Marker pens**,** White board**,** Flip chart

Assessment Strategies

Formative: CAT(s) accounts for 40% of the total marks

Summative: End of Semester Examinations accounts for 60% of the total marks

References/Further Readings

Alder, B. et al (2014). *Psychology and sociology applied to medicine* 3rd ed., Churchill livingstone

Bradby, H. (2009). *Medical Sociology and Introduction* 1ST ed.,London: Sage publication Ltd

Chance, P. (2013). *Learning and Behaviour.* Belmont, CA, Wadsworth: Cengage Learning.

Davey, G. (2008). *Complete psychology*, 2nd ed. London, UK Hodder & Stoughton

Fadem, B. (2005). *Behavioural science.* 6th Ed. Wolters Kluwer: Lippincott Williams & Wilkins

Hakala, C. (2014). *AP Psychology.* 1st ed., New York: Kaplan publishing Inc.

Joralemon, D. (2016). *Exploring medical anthropology.* 3rd ed., New York: Routledge

Kasschau, R.A (2003). *Understanding Psychology*. Glencoe: McGraw - Hill

Sdorow, L. M. (2005). *Psychology*. 6thed, Belmont, CA, Wadsworth: Cengage Learning.

Santrock, J.W. (2009). *Lifespan Development* 12th Ed., Boston: McGraw Higher Education

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KENYA MEDICAL TRAINING COLLEGE
DEPARTMENT OF ORTHOPAEDICS & TRAUMA MEDICINE

Course Outline
For
Certificate Course In Orthopaedic &Trauma Medicine

Lecturer's Details

Name:	
Qualifications:	
Phone Number:	
Email address:	
Signature:	
Date:	

Course Outline for STI/HIV/AIDS

Code: **SHA 103**

Hours: **30**

Credit: **3**

Competence

Enable the learner prevent the spread of STI/HIV/AIDS at individual and community level.

Outcomes

1. Relate cultural effects on health and sickness behaviour
2. Demonstrate understanding of how social factors influence health and healthcare delivery

3. Apply principles of psychology in management of orthopaedic and trauma conditions

Content Delivery

Week	Dates		Unit
	From	To	
Week 1:			Introduction to HIV&AIDS
Week 2:			Introduction to HIV&AIDS Introduction to HIV&AIDS
Week 3			Introduction to HIV&AIDS
Week 4			Introduction to HIV&AIDS
Week 5:			Introduction to HIV&AIDS
Week 6:			Introduction to HIV&AIDS
Week 7:			Introduction to STI
Week 8:			Introduction to STI
Week 9:			**CATs**
Week 10:			Introduction to STI
Week 11			Introduction to STI
Week 12:			Introduction to Public health in STI/HIV&AIDS
Week 13:			Introduction to Public health in STI/HIV&AIDS
Week 14:			Introduction to Public health in STI/HIV&AIDS
Week 15:			Introduction to Public health in STI/HIV&AIDS
Week 16:			Introduction to Public health in STI/HIV&AIDS
Week 17:			Study Week
Week 18:			End Of Semester Examinations

Module Content

Introduction to HIV&AIDS; historical background, classification of STI, infection, transmission and prevention, signs and symptoms, WHO staging, management. **Introduction to STI;** urethral and vaginal infections**,** ophthalmianeonatorum, syphilis. **Introduction to Public**

health in STI/HIV&AIDS; Transmission and safer sex practice, use of condoms, access, care and disposal, home based care of persons with STI/HIV/AIDS, referral services, participatory dialogue, behavioural change and counselling skills

Teaching Strategies

Lecture, demonstration, group discussion, role play, eLearning

Teaching/Learning Resources

Laptop, computers, projectors, flip charts, whiteboards, maker pens and recommended textbooks, internet

Assessment Strategies

Formative: CAT(s) accounts for 40% of the total marks

Summative: End of Semester Examinations accounts for 60% of the total marks

References/Further Readings

Guideline for antiretroviral Therapy in Kenya (2016). *Reprint National Aids and STI Control Programme* (NASCOP)

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KENYA MEDICAL TRAINING COLLEGE
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Lecturer's Details

Name:	
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Phone Number:	
Email address:	
Signature:	
Date:	

Course Outline for community Health

Code: **CMH 203**

Hours: **30**

Credit: **3**

Competence

Enable the learner demonstrate understanding of factors influencing management of orthopaedic and trauma conditions in the community

Outcomes

1. Demonstrate understanding of the role of community in the management of orthopaedic and trauma conditions
2. Demonstrate understanding of the organization of the health care system in the country
3. Carry out health education to the community in the management of orthopaedic and trauma conditions
4. Demonstrate understanding of the medical legal issues pertaining carrying out management of orthopaedic and trauma conditions

Content Delivery

Week	Dates		Unit
	From	**To**	
Week 1:			Introduction to community health,
Week 2:			Introduction to community health
Week 3			Primary health care
Week 4			Primary health care
Week 5:			Primary health care
Week 6:			Primary health care
Week 7:			Primary health care
Week 8:			Primary health care
Week 9:			**CATs**
Week 10:			Health education
Week 11			Health education
Week 12:			Health education
Week 13:			Health education
Week 14:			National health policies and services
Week 15:			National health policies and services
Week 16:			National health policies and services
Week 17:			Study Leave
Week 18:			**End of Semester Examinations**

Module Content

Introduction to community health; definitions, basic concepts, principles, organization of health care. **Primary health care;** definitions, MOH organizational structure of PHC and CBR, goal, MDGs and Vision 2030. **Health education;** teaching skills/methods, nutrition, community

sensitization, community health strategies, health needs identification, community mobilization. **National health policies and services;** professional bodies/Associations, regulation of medical professions, the constitution and medical law, consent, medical negligence.

Teaching Strategies

Lectures, demonstration, group discussions, individual assignments and case studies

Teaching/Learning Resources

Laptop computer, projector, white board and whiteboard markers

Assessment Strategies

Formative: CAT(s) accounts for 40% of the total marks

Summative: End of Semester Examinations accounts for 60% of the total marks

References/Further Readings

World Health Organization, (2010). Community Based Rehabilitation; CBR guidelines. Malta; WHO Press

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Name:	
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Phone Number:	
Email address:	
Signature:	
Date:	

Course Outline for Trauma Life Support

Code: **TLS 103**

Hours: **30**

Credit: **3**

Competence

Enable the learner provide immediate life support care to trauma patient

Outcomes

1. Carry out trauma triage.
2. Carry out primary survey to injured patient
3. Perform quality cardiopulmonary resuscitation (CPR)
4. Carry out First Aid to patients

Content Delivery

Week	Dates		Unit
	From	**To**	
Week 1:			Triage
Week 2:			Triage
Week 3			Triage
Week 4			Triage
Week 5:			Primary survey
Week 6:			Primary survey
Week 7:			Primary survey
Week 8:			Primary survey
Week 9:			**CATs,**
Week 10:			Cardiopulmonary resuscitation
Week 11			Cardiopulmonary resuscitation
Week 12:			Cardiopulmonary resuscitation
Week 13:			Cardiopulmonary resuscitation
Week 14:			First Aid
Week 15:			First Aid
Week 16:			First Aid
Week 17:			Study Week
Week 18:			**End of Semester Examinations**

Module Content

Triage; triage protocol. **Primary survey;** ABC protocol, BTLS, Shock management of airway,**Cardiopulmonary resuscitation;** quality compression, airway aids (Gaudel airway, face mask, nasal prongs, endotracheal tubes). Restriction of the Cervical Spine secondary survey. Head to toe examination **First Aid;** recovery position, bandaging and dressing, choking, poisoning (acids, alkalines, alcohols, organophsphate, medicines) stings, snake bites, burns, near drowning, foreign bodies (nose, throat, ears, eyes) Arrange for inter hospital or intra hospital transfer**,** Emphasize the"golden hour" concept and the urgency necessary for successful treatment of injured patients.

Teaching Strategies

Interactive lectures, small group demonstrations, Role play, video shows, active skills practice

Training/Learning Resources

Flip chart, marker pens, masking tape, note books and pens, LCD projector, laptops, videos, models/manikins, airway, face masks, ambu bags, automated external defibrator (AED).

Assessment strategies

Formative assessment: Continuous Assessment Tests (CATs), Random Assessments Tests (RATS), Assignments, Quizzes, OSCE, mini CEX accounts for 40% of the total marks

Summative assessment: End of semester examination accounts for 60% of the total marks

References/Further Readings

Annals of trauma life support Howard A wermanetel.

America Heart Foundation manuals

The trauma manual Andrew B. 4th edition

Srbs manual of surgery

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Date: _____

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Name:	
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Phone Number:	
Email address:	
Signature:	

Date:

Course Outline for Clinical skills

Code: **CLS 103**

Hours: **30**

Credit: **3**

Competence

Enable the learner evaluate patients in a clinical setup.

Outcomes

1. Communicate effectively with patients
2. Take a comprehensive history
3. Perform a complete physical examination
4. Relate relevant radiological findings

Content Delivery

Week	Dates		Unit
	From	**To**	
Week 1:			Communication skills
Week 2:			Communication skills
Week 3			Communication skills
Week 4			Communication skills
Week 5:			History taking
Week 6:			History taking
Week 7:			History taking
Week 8:			History taking
Week 9:			**CAT**
Week 10:			Physical Examination
Week 11			Physical Examination
Week 12:			Physical Examination
Week 13:			Physical Examination
Week 14:			Basic investigations
Week 15:			Basic investigations
Week 16:			Basic investigations
Week 17:			Study Week
Week 18:			**End of Semester Examinations**

Module Content

Communication skills; communication process & observing: choice of words (ways of asking question- open ended, closed question, paraphrases' summarizing, probing) receiving and giving feedback: expressing feeling (verbal & non-verbal communication) **History taking;** chief complains, history of the presenting illness, past surgical & medical history, personal social economic history. **Physical Examination;** General condition appearance (posture/built/nutritional status, hygiene grooming ,obvious abnormality Jaundice, Cyanosis, Edema, Dehydration, Lymphadenopathy, pallor ,vital signs, local examination, Muscle, bulk, power, tone, measurement & movement. **Basic investigations;** laboratory investigations, types of diagnostic image, identification,

Teaching Strategies

Lectures, demonstration, group discussions, individual assignments and case studies

Learning/Teaching Resources

Laptop computer, projector, white board and whiteboard markers

Assessment(s)

Formative: CAT(s) accounts for 40% of the total marks

Summative; End of Semester Examinations accounts for 60% of the total marks

References/Further Readings

KMTC, *Clinical Manual for Skills lab*

Glynn M., Drake W. M. (2017). *Hutchison's Clinical Methods* (24th Edition). An Integrated Approach to Clinical Practice. London: Elsevier

Roper T. A. (2005). *Clinical Skills* (2nd Ed).

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Lecturer's Details

Name:	
Qualifications:	
Phone Number:	
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Signature:	
Date:	

Course Outline for Anatomy II

Code: **ANT 206**
Hours: **60**
Credit: **6**

Competence

Enable the learner to apply concept of anatomy in diagnosis of orthopaedic and trauma medicine.

Outcomes

1. Demonstrate understanding of anatomical organization of the upper limb
2. Identify structures within the chest

3. Describe structures within the abdominal cavity
4. Demonstrate understanding of anatomical organization of the head and neck

Content Delivery

Week	Dates		Unit
	From	To	
Week 1:			Upper limb,
Week 2:			Upper limb
Week 3			Upper limb
Week 4			Upper limb
Week 5:			Upper limb Chest
Week 6:			Chest
Week 7:			Chest
Week 8:			Abdomen
Week 9:			**CATs**
Week 10:			Abdomen
Week 11			Abdomen Head and Neck
Week 12:			Head and Neck
Week 13:			Head and Neck
Week 14:			Head and Neck
Week 15:			Head and Neck
Week 16:			Head and Neck
Week 17:			Study Week
Week 18:			**End of Semester Examinations**

Module Content

Upper limb; Bones of the upper extremities and shoulder girdle, muscles of the upper extremities and shoulder, nerves, joints of upper limb. Blood supply to upper limb. **Chest**; thoracic cage, intercostal muscles, mediastinum, pleura. **Abdomen;** anterior abdominal wall, peritoneum, abdominal viscera **Head and Neck;** skull, muscles of the head, scalp, muscles of the neck, cranial cavity, brain, special senses organs

Teaching Strategies
Interactive lecture, small group demonstration, small group discussion

Teaching/Learning Resources

Laptop, computers, projectors, whiteboards, maker pens, lesson plans and recommended textbooks

Assessment strategies

Formative: Continuous assessment tests accounts for 40% of the total marks.

Summative: End of semester examination accounts for 60% total marks.

References/Further Readings

Cunningham's *Manual of Practical anatomy* Vol.1, 2 and 3 :ROMANES G. J. – Oxford University Press

Ross and Wilson, (2011). *Anatomy and Physiology*. 11th edition, Churchill Livingstone Edinburgh

Drake, R. L., Vogl, A. W., Mitchelladam W. M. (2015). *Gray's Anatomy for Students.* 3rd edition, Churchill Livingstone Elsevier

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Approved By: Name: _____

Signature: _____

KENYA MEDICAL TRAINING COLLEGE
DEPARTMENT OF ORTHOPAEDICS & TRAUMA MEDICINE

Course Outline
For
Certificate Course In Orthopaedic &Trauma Medicine

Lecturer's Details

Name:	
Qualifications:	
Phone Number:	
Email address:	
Signature:	
Date:	

Course Outline for Physiology II

Code: **PHY 203**

Hours: **30**

Credit: **3**

Competence

Enable the learner diagnose orthopaedic and trauma patients.

Outcomes

1. Demonstrate understanding of the endocrine system
2. Explain the role of the respiratory system in gaseous exchange

3. Demonstrate understanding of functions of the gastrointestinal tract system
4. Demonstrate understanding of functions of the genito-urinary tract system
5. Explain the role of the Special organs in the body

Content Delivery

Week	Dates		Unit
	From	**To**	
Week 1:			Endocrine system
Week 2:			Endocrine system
Week 3			Respiratory system
Week 4			Respiratory system
Week 5:			Respiratory system
Week 6:			Respiratory system
Week 7:			Digestive system
Week 8:			Digestive system
Week 9:			**CATs**
Week 10:			Genito-urinary system
Week 11			Genito-urinary system
Week 12:			Genito-urinary system
Week 13:			Genito-urinary system
Week 14:			Special Organs
Week 15:			Special Organs
Week 16:			Special Organs
Week 17:			Study Leave
Week 18:			**End of Semester Examinations**

Module Content

Endocrine system; functions, types of endocrine glands, hormones and their functions, endocrine access, feedback mechanism. **Respiratory system;** review of structures, functions, defence mechanism, gaseous exchange. **Digestive system;** review of structures, functions, enzymes, hormones, common conditions. **Genito-urinary system**; review of structures, functions, regulation of vitamin D and erythropoiesis. **Special Organs;** the eye, nose, ear, tongue

Teaching Strategies
Interactive lecture, small group demonstration, small group discussion

Teaching/Learning Resources

Laptop, computers, projectors, whiteboards, maker pens, lesson plans and recommended textbooks

Assessment strategies

Formative: Continuous assessment tests, Quiz, Assignment

*Summativ*e: End of semester examination accounts for 60% of the total marks.

References/Further Readings

Barret, K. E. et al. (2016). *Ganong's review of medical physiology* 25th ed., New Delhi: McGraw Hill Education

Hall, J. E. (2011). *Guyton and Hall textbook of medical physiology* 12th ed., Philadelphia: Saunders Elsevier

Sembulingam, K. and Sembulingam, P. (2012). *Essentials of Human Physiology* 6th ed., New Delhi: Jaypee Brothers medical publishers.

Waugh, A. and Grant, A. (2011). *Ross and Wilson Foundation of Anatomy and Physiology in health and illness* 11th ed., Edinburgh: Churchill Livingston

Prepared By: Name: _____

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Date: _____

KENYA MEDICAL TRAINING COLLEGE
DEPARTMENT OF ORTHOPAEDICS & TRAUMA MEDICINE

Course Outline
For
Certificate Course In Orthopaedic &Trauma Medicine

Lecturer's Details

Name:	
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Phone Number:	
Email address:	
Signature:	
Date:	

Course Outline for Orthopaedic Nursing

Code: **PHY 203**
Hours: **30**
Credit: **3**

Competence

Enable the learner to apply principles of nursing in the management of orthopaedic and trauma condition.

Outcomes

1. Demonstrate understanding of Nursing Practice
2. Demonstrate understanding of admission and discharge procedures
3. Participate in nursing of orthopaedic and trauma patient
4. Demonstrate understanding of aseptic techniques
5. Demonstrate understanding of pre- and post – operative care of orthopaedic and trauma patients

Content Delivery

Week	Dates		Unit
	From	**To**	
Week 1:			Introduction to nursing
Week 2:			Admission and discharge procedures
Week 3			Admission and discharge procedures
Week 4			Admission and discharge procedures
Week 5:			Nursing procedures in orthopaedic and trauma
Week 6:			Nursing procedures in orthopaedic and trauma
Week 7:			Nursing procedures in orthopaedic and trauma
Week 8:			Nursing procedures in orthopaedic and trauma
Week 9:			**CATs**
Week 10:			Aseptic techniques
Week 11			Aseptic techniques
Week 12:			Aseptic techniques
Week 13:			Pre- and Post-operative care
Week 14:			Pre- and Post-operative care
Week 15:			Pre- and Post-operative care
Week 16:			Pre- and Post-operative care
Week 17:			Study Leave
Week 18:			**End of Semester Examinations**

Module Content

Introduction to nursing; Principles & concept of nursing. **Admission and discharge procedures;** patient bio data, clerkship, follow-up. **Nursing procedures in orthopaedic and trauma;** vital signs, routine tests, recording, reporting, medication, ordering of drugs. **Aseptic techniques;** infection prevention and control, wound care, use personal protective equipment. **Pre- and Post-operative care;** patient counselling, pre-operative preparation, patient movement, activities of daily living

Teaching Strategies

Interactive lecture, small group demonstration, small group discussion

Teaching/Learning Resources

Laptop, computers, projectors, whiteboards, maker pens, lesson plans, recommended textbooks, models and PowerPoint slides

Assessment strategies

Formative: Continuous assessment tests, Quiz, Assignment

*Summativ*e: End of semester examination accounts for 60% of the total marks.

References/Further Readings

1. Nursing procedure manual
2. Standard operating procedures in nursing.

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Date: _____

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KENYA MEDICAL TRAINING COLLEGE
DEPARTMENT OF ORTHOPAEDICS & TRAUMA MEDICINE

Course Outline
For
Certificate Course In Orthopaedic &Trauma Medicine

Lecturer's Details

Name:	
Qualifications:	
Phone Number:	
Email address:	
Signature:	
Date:	

Course Outline for Casting & Splinting

Code: **CST 203**

Hours: **30**

Credit: **3**

Competence

This module is designed to enable the learner apply casts and splints to orthopaedic and trauma patients

Outcomes

1. Use casting and splinting materials
2. Carry out casting and splinting of upper limbs
3. Carry out casting and splinting of lower limbs
4. Understand occupational health and safety casting

Content Delivery

Week	Dates		Unit
	From	**To**	
Week 1:			Introduction to casting and splinting**;**
Week 2:			Introduction to casting and splinting**;**
Week 3			Occupational health and safety
Week 4			Upper limb casts and splints
Week 5:			Upper limb casts and splints
Week 6:			Upper limb casts and splints
Week 7:			Upper limb casts and splints
Week 8:			Upper limb casts and splints
Week 9:			**CATs**
Week 10:			Upper limb casts and splints
Week 11			Lower limb casts and splints
Week 12:			Lower limb casts and splints
Week 13:			Lower limb casts and splints
Week 14:			Lower limb casts and splints
Week 15:			Lower limb casts and splints
Week 16:			Lower limb casts and splints
Week 17:			Study Leave
Week 18:			**End of Semester Examinations**

Module Content

Introduction to casting and splinting; principles of casting & splinting, overview of materials and their properties. **Occupational health and safety;** instructions to patients, review, duration, specific casts, storage, and waste disposal. **Upper limb casts and splints;** types, indications, contraindications, application techniques, care and complications, **Lower limb casts and splints:** types, indications, contraindications, application techniques, care and complications

Teaching Strategies

Interactive lecture, small group demonstration, small group discussion

Teaching/learning resources

Laptop, computers, projectors, whiteboards, maker pens, lesson plans and recommended textbooks

Assessment strategies

Formative: Continuous assessment tests accounts for 40% of the total marks.

Summative: Final qualifying examination accounts for 60% of the total marks

References/Further Readings

Adams, J. (2012). *Outline of fractures* 12th ed., London: Churchill Livingstone

Ronald, M. and max, E.(2008). *Practical fracture management* 5th ed., Churchill livingstone

Kenneth, A., Keneth, J., and Joseph, D. (2012). *Hand book of fractures* 4th ed.,India: New Delhi

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Date: _____

KENYA MEDICAL TRAINING COLLEGE
DEPARTMENT OF ORTHOPAEDICS & TRAUMA MEDICINE

Course Outline
For
Certificate Course In Orthopaedic &Trauma Medicine

Lecturer's Details

Name:	
Qualifications:	
Phone Number:	
Email address:	
Signature:	
Date:	

Course Outline for Traction Techniques

Code: **TRA 203**

Hours: **30**

Credits: **3**

Competence

Enable the learner to apply tractions on patients with orthopaedic and trauma conditions

Outcomes

1. Use casting and splinting materials
2. Carry out casting and splinting of upper limbs
3. Carry out casting and splinting of lower limbs
4. Understand occupational health and safety casting

Content Delivery

Week	Dates		Unit
	From	**To**	
Week 1:			Introduction
Week 2:			Introduction
Week 3			Lower Limb tractions
Week 4			Lower Limb tractions
Week 5:			Lower Limb tractions
Week 6:			Lower Limb tractions
Week 7:			Lower limb tractions
Week 8:			Upper limbs traction
Week 9:			**CATs**
Week 10:			Upper limbs traction
Week 11			Upper limbs traction
Week 12:			Tractions of the spine
Week 13:			Tractions of the spine
Week 14:			Tractions of the spine
Week 15:			Pelvic tractions
Week 16:			Pelvic tractions
Week 17:			Study Leave
Week 18:			**End of Semester Examinations**

Module Content

Introduction; definition, principles, types, methods. **Lower Limb tractions;** types, indications, contraindications, application and removal technique, care, complications. **Upper limb tractions;** types, indications, contraindications, application and removal techniques, care, complications, **Tractions of the spine**; types, indications, contraindications, application technique, care, complication. **Pelvic tractions;** types, indications, contraindications, application technique, care, complication.

Teaching Strategies

Interactive lecture, small group demonstration, small group discussion

Teaching/learning resources

Laptop, computers, projectors, whiteboards, maker pens, lesson plans and recommended textbooks

Assessment strategies

Formative: Continuous assessment test accounts for 40% of the total marks.

Summative: Final qualifying examination accounts for 60% of the total marks

References/Further Readings

Adam, J. (2012). *Outline of Fractures* 12th edition, London: Churchill Livingstone

Ronald, M. and Max, E. (2008). *Practical Fracture Management.* 5th edition Churchill livingstone

Kenneth, A., Keneth, J, and Joseph, D. (2015). *Hand book of fractures.* 5th edition, India: New Delhi, India

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Date: _____

KENYA MEDICAL TRAINING COLLEGE
DEPARTMENT OF ORTHOPAEDICS & TRAUMA MEDICINE

Course Outline
For
Certificate Course In Orthopaedic &Trauma Medicine

Lecturer's Details

Name:	
Qualifications:	
Phone Number:	
Email address:	
Signature:	
Date:	

Course Outline for Diagnostic and Imaging techniques

Code: **DIT 303**

Hours: **30**

Credits: **3**

Competence

Enable the learner to identify orthopaedic and trauma conditions on radiographs

Module Outcomes

1. Demonstrate understanding of diagnostic imaging in management of orthopaedic and trauma conditions
2. Demonstrate understanding of effects of radiation
3. Relate the radiological findings with clinical presentation of the patient.

Content Delivery

Week	Dates		Unit
	From	**To**	
Week 1:			Introduction to diagnostic images
Week 2:			Principles & concepts of radiology and imaging
Week 3			Principles & concepts of radiology and imaging
Week 4			Principles & concepts of radiology and imaging
Week 5:			Principles & concepts of radiology and imaging
Week 6:			Principles & concepts of radiology and imaging
Week 7:			Identify musculoskeletal abnormalities
Week 8:			Identify musculoskeletal abnormalities
Week 9:			**CATs**
Week 10:			Identify musculoskeletal abnormalities
Week 11			Identify musculoskeletal abnormalities
Week 12:			Identify musculoskeletal abnormalities
Week 13:			Identify musculoskeletal abnormalities
Week 14:			Identify musculoskeletal abnormalities
Week 15:			Identify musculoskeletal

	abnormalities
Week 16:	Identify musculoskeletal abnormalities
Week 17:	Study Leave
Week 18:	**End of Semester Examinations**

Module Content

Introduction to diagnostic images; background information, definitions; **Principles & concepts of radiology and imaging**; types, principles, indications, health risks and safety. Principles & concepts of radiology and imaging. **Identify musculoskeletal abnormalities;** orthopaedic & trauma disorders

Teaching Strategies
Interactive lecture, small group demonstration, small group discussion

Teaching/learning resources

Laptop, computers, projectors, whiteboards, maker pens, lesson plans and recommended textbooks

Assessment strategies

Formative: Continuous assessment test accounts for 40% of the total marks.

Summative: End of semester examination accounts for 60% of the total marks

References/Further Readings

Adam, J. (2012). *Outline of Fractures* 12th edition, London: Churchill Livingstone

Ronald, M. and Max, E. (2008). *Practical Fracture Management.* 5th edition Churchill livingstone

Kenneth, A., Keneth, J, and Joseph, D. (2015). *Hand book of fractures.* 5th edition, India: New Delhi, India

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Date: _____

KENYA MEDICAL TRAINING COLLEGE
DEPARTMENT OF ORTHOPAEDICS & TRAUMA MEDICINE

Course Outline
For
Certificate Course In Orthopaedic &Trauma Medicine

Lecturer's Details

Name:	
Qualifications:	
Phone Number:	
Email address:	
Signature:	
Date:	

Course Outline for Introduction To Medicine

Code: GMD 203

Hours: 30

Credit: 3

Competence

Enable the learners to identify common medical conditions and refer appropriately.

Outcomes

1. Identify common communicable diseases relevant to Orthopaedic and trauma conditions
2. Identify common non communicable diseases relevant to Orthopaedic and trauma conditions
3. Demonstrate understanding common pharmaceutical agents used in trauma patients

Content Delivery

Week	Dates		Unit
	From	**To**	
Week 1:			Common communicable diseases
Week 2:			Common communicable diseases
Week 3			Common communicable diseases
Week 4			Common communicable diseases
Week 5:			Common communicable diseases
Week 6:			Non communicable diseases
Week 7:			Non communicable diseases
Week 8:			Non communicable diseases
Week 9:			**CATs,**
Week 10:			Non communicable diseases
Week 11			Non communicable diseases
Week 12:			Pharmaceutical agents
Week 13:			Pharmaceutical agents
Week 14:			Pharmaceutical agents
Week 15:			Pharmaceutical agents
Week 16:			Pharmaceutical agents
Week 17:			Study Week
Week 18:			**End of Semester Examinations**

Module Content

Common communicable diseases; Introduction infections, immunity and defence mechanism, acute infections, TB, pneumonia, and chronic infections, tropical diseases malaria, fungus. **Non communicable diseases;** endocrine diseases, diabetes, cardiac conditions, cancer, vascular conditions, degenerative disorders diabetes mellitus, cancer. **Pharmaceutical agents;** Introduction**,** Principles of pharmacology, approval and regulations, pharmacokinetics and pharmacodynamics of common drugs, drugs, anti infectious agents, antiepileptic, local anesthetics,muscle relaxtants,

Teaching Strategies

Lectures, demonstration, group discussions, individual assignments and case studies

Teaching/Learning Resources

Laptop computer, projector, white board and whiteboard markers

Assessment Strategies

Formative: CAT(s) accounts for 40% of the total marks

Summative: End of Semester Examinations accounts for 60% of the total marks

References/Further Readings

Davidson's principles and practice of medicine

Haematology text book

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KENYA MEDICAL TRAINING COLLEGE
DEPARTMENT OF ORTHOPAEDICS & TRAUMA MEDICINE

Course Outline
For
Certificate Course In Orthopaedic &Trauma Medicine

Lecturer's Details

Name:	
Qualifications:	
Phone Number:	
Email address:	
Signature:	
Date:	

Course Outline for Traumatology I

Code: **TRA 203**

Hours: **30**

Credits: **3**

Competence

Enable the learner to identify and manage various trauma conditions

Outcomes

1. Demonstrate understanding of trauma
2. Classify fractures
3. Identify clinical and radiological features of fractures
4. Apply principles of fracture management
5. Understand general complications of fractures.

Content Delivery

Week	Dates		Unit
	From	**To**	
Week 1:			Introduction to traumatology
Week 2:			Classification of fractures
Week 3			Classification of fractures
Week 4			Classification of fractures
Week 5:			Classification of fractures
Week 6:			Clinical and Radiological features of fractures
Week 7:			Clinical and Radiological features of fractures
Week 8:			Clinical and Radiological features of fractures
Week 9:			**CATs**
Week 10:			Clinical and Radiological features of fractures
Week 11			Principles of fracture management
Week 12:			Principles of fracture management
Week 13:			Principles of fracture management
Week 14:			Principles of fracture management

Week 15:	Complications of Fractures
Week 16:	Complications of Fractures
Week 17:	Study Leave
Week 18:	**End of Semester Examinations**

Module Content

Introduction to traumatology; Historical background, Present trends and terminologies, mechanism of injury fracture healing. **Classification of fractures;** aetiology, patterns, displacement, clinical presentation, **Clinical and Radiological features of fractures;** signs, symptoms, radiological features. **Principles of fracture management;** First Aid, Reduction, Immobilization and Rehabilitation. **Complications of Fractures;** immediate, early and late

Teaching Strategies

Interactive/modified lectures, small group demonstrations, video interactions and small group discussions

Teaching/Learning Resources

Laptop, computers, projectors, whiteboards, maker pens, lesson plans, recommended textbooks, models and PowerPoint slides

Assessment strategies

Formative: Continuous assessment test accounts for 40% of the total marks.

Summative: Final qualifying examination accounts for 60% of the total marks

References/Further Readings

David, L., Hamblen, A., Hamish, R. and Simpson, w. (2007.) *Adam's Outline of fractures,* 12th Ed. Churchill Livingstone, Elsevier

Dandy, D. and Edwards, D. (2009). *Essential Orthopaedics and Trauma*. 5th Ed. Churchill Livingstone, Edinburgh

Kenneth, A, et al (2010). *Handbook of Fractures.* 4th Ed. Wolters Kluwer, Philadelphia

McRae, S. and Esser, M. (2008). *Practical fracture Management.* 5th Ed. Elsevier Churchill Livingstone, Edinburgh

Sherry, E and Bokor, D. (1997). *Sports Medicine – Problems and Practical Management.* Greenwich Medical Media, London

Louis, S., David, W. and Selvadurai, G. (2010). *Apley's Syetem of Orthopaedics and Fractures,* 8th Ed.

Prepared By: Name: _____

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Date: _____

Approved By: Name: _____

Signature: _____

Date: _____

KENYA MEDICAL TRAINING COLLEGE
DEPARTMENT OF ORTHOPAEDICS & TRAUMA MEDICINE

Course Outline
For
Certificate Course In Orthopaedic &Trauma Medicine

Lecturer's Details

Name:	
Qualifications:	
Phone Number:	
Email address:	
Signature:	
Date:	

Course Outline for Orthopaedics

Code: **ORT 203**

Hours: **30**

Credits: **3**

Competence

Enable the learner to manage common orthopedic conditions

Outcomes

1. Demonstrate understanding orthopaedic disorders.
2. Classify orthopaedic disorders.
3. Manage orthopaedic disorders

Content Delivery

Week	Dates		Unit
	From	**To**	
Week 1:			Introduction to orthopaedics
Week 2:			Introduction to orthopaedics
Week 3			Classification of orthopaedic conditions
Week 4			Classification of orthopaedic conditions
Week 5:			Classification of orthopaedic conditions
Week 6:			Classification of orthopaedic conditions
Week 7:			Classification of orthopaedic conditions
Week 8:			Classification of orthopaedic conditions
Week 9:			**CATs**
Week 10:			Classification of orthopaedic conditions
Week 11			Classification of orthopaedic conditions
Week 12:			Classification of orthopaedic conditions
Week 13:			Classification of orthopaedic conditions
Week 14:			Principles of management
Week 15:			Principles of management
Week 16:			Principles of management

Week 17:	Study Leave
Week 18:	**End of Semester Examinations**

Module Content

Introduction to orthopaedics; Historical background, general considerations in Orthopaedic surgery, **Classification of orthopaedic conditions;** infections, deformities, degenerative, neurological disorders, neoplasms. **Principles of management;** conservative and surgical

Teaching Strategies

Interactive/modified lectures, small group demonstrations, video interactions and small group discussions

Teaching/learning resources

Laptop, computers, projectors, whiteboards, maker pens, lesson plans, recommended textbooks, models and PowerPoint slides

Assessment strategies

Formative: Continuous assessment test accounts for 40% of the total marks.

Summative: Final qualifying examination accounts for 60% of the total marks

References/Further Readings

David, L., Hamblen, R. and Simpson, W. (2010). *Adam'sOutline of Orthopaedics.* 14th Ed, Churchil Livingstone, Elservier

Gartland, J.J. (1965). *Fundamentals of Orthopaedics*. Philadelphia, London:W.B. Saunders company

Powel, M. (1976). *Orthopaedic Nursing*. 7th ed. London:Harcourt Brace/Churchil Livingstone.

McRae, R. (2010). *Clinical Orthopaedic Examination*. 6th ed. London: Churchil Livingstone Elsevier.

Louis, S., David, W. and Selvadurai, R. (2010). *Apley's Syetem of Orthopaedics and Fractures*. 8th Ed.

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Date: _____

Approved By: Name: _____

Signature: _____

Date: _____

KENYA MEDICAL TRAINING COLLEGE
DEPARTMENT OF ORTHOPAEDICS & TRAUMA MEDICINE

Course Outline
For
Certificate Course In Orthopaedic &Trauma Medicine

Lecturer's Details

Name:	
Qualifications:	
Phone Number:	
Email address:	
Signature:	
Date:	

Course Outline for Introduction to Health Systems Management

Code: **HSM 303**

Hours: **30**

Credit: **3**

Competence

Enable the learner utilize concepts and principals of managerial skills

Outcomes

1. Demonstrate understanding of management process in the health sector
2. Demonstrate understanding of organization of healthcare delivery system
3. Use communication skills within healthcare delivery

Content Delivery

Week	Dates		Unit
	From	**To**	
Week 1:			Introduction to Leadership and Management
Week 2:			Introduction to Leadership and Management
Week 3			Introduction to Leadership and Management
Week 4			Introduction to Leadership and Management
Week 5:			Introduction to Leadership and Management
Week 6:			Organization of Healthcare Services
Week 7:			Organization of Healthcare Services
Week 8:			Organization of Healthcare Services
Week 9:			**Cats**
Week 10:			Organization of Healthcare Services
Week 11			Organization of Healthcare Services
Week 12:			Communication and Networking
Week 13:			Communication and Networking
Week 14:			Communication and Networking
Week 15:			Communication and Networking
Week 16:			Communication and Networking

Week 17:			Study Week
Week 18:			**End of Semester Examinations**

Module Content

Introduction to Leadership and Management; definitions, importance, principles, functions, leadership skills, qualities and styles. **Organization of Healthcare Services;** structure, purpose, types, functions, levels of service, referral system in Kenya. **Communication and Networking;** effective communication skills, levels of communication, report writing, Curriculum vitae, letter writing, minutes writing

Teaching Strategies

Interactive lectures**,** role play, small group discussions

Teaching/Learning Resources

Laptops**,** LCD, projector**,** marker pens**,** white board**,** flip chart

Assessment Strategies

Formative: CAT(s) accounts for 40% of the total marks.

Summative: End semester Examinations accounts for 60% of the total marks

References/Further Readings

McCauley, C. D., Russ, S. M. and Ellen, V. V. (1998). *The Centre for Creative Leadership Handbook of leadership development*. Greensboro, NC: Centre for Creative Leadership; San Francisco: Jossey-Bass.

Lomax, S. (2001). *Best practices for Managers for Expatiates*. New York: John Wiley & Sons.

GoK, Kenya Vision 2030 (2007). Nairobi: Government Printers, Nairobi.

MSH. Managers Who Lead: A Handbook for Improving Health Services- Available on the Leader Net website: http://erc.msh.org/leadernet in the Leadership Facilitator section.

Kotter, J. P. (1990). "What Leaders Really Do." Harvard Business Review May-June 1990: 1-12.

Nyarango, P.M., Nordberg, E., Liambila, W.N., Onyayo S. and Nangami, M. (2005). Health Planning and Management for Healthcare managers in Developing Countries. Nairobi: AMREF.

Armstrong, M (2001) A handbook of Human resource Management Practice. Kegan Page Ltd: London, U.K.

Sullivan, E. J., and Phillip J. D. (1997). *Effective Leadership and Management in Nursing.* 4th ed. Menlo Park, CA: Addison Wesley Nursing.

Prepared By: Name: _____

Signature: _____

Date: _____

Approved By: Name: _____

Signature: _____

Date: _____

KENYA MEDICAL TRAINING COLLEGE
DEPARTMENT OF ORTHOPAEDICS & TRAUMA MEDICINE

Course Outline
For
Certificate Course In Orthopaedic &Trauma Medicine

Lecturer's Details

Name:	
Qualifications:	
Phone Number:	
Email address:	
Signature:	
Date:	

Course Outline for Traumatology II

Code: **TRM 303**

Hours: **30**

Credit: **3**

Competence

Enable the learner manage trauma conditions.

Outcomes

1. Manage injuries of the upper limb.
2. Manage injuries of the lower limb.
3. Manage injuries of the head, chest and spine.
4. Manage Joint and Soft tissue injuries

Content Delivery

Week	Dates		Unit
	From	**To**	
Week 1:			Fractures of the upper extremity Fractures of the upper extremity
Week 2:			Fractures of the upper extremity Fractures of the upper extremity
Week 3			Fractures of the upper extremity Fractures of the upper extremity
Week 4			Fractures of the upper extremity Fractures of the upper extremity
Week 5:			Fractures of the upper extremity Fractures of the upper extremity
Week 6:			Fractures of the lower extremity Fractures of the lower extremity
Week 7:			Fractures of the upper extremity Fractures of the upper extremity
Week 8:			Fractures of the lower extremity Fractures of the lower extremity
Week 9:			**Cats,**
Week 10:			Fractures of the lower extremity Fractures of the lower extremity
Week 11			Fractures of the lower extremity Fractures of the lower extremity
Week 12:			Injuries of the head and spine Injuries of the head and spine
Week 13:			Injuries of the head and spine Injuries of the head and spine
Week 14:			Injuries of the head and spine

			Joint and soft tissue injuries
Week 15:			Joint and soft tissue injuries Joint and soft tissue injuries
Week 16:			Joint and soft tissue injuries Joint and soft tissue injuries
Week 17:			Study Week
Week 18:			**End of Semester Examinations**

Module Content

Fractures of the upper extremity; shoulder girdle, scapula, clavicle, humerus, radius, ulna, carpals, metacarpals and phalanges. **Fractures of the lower extremity;** pelvic girdle, femur, patella, tibia/fibula, tarsals, metatarsals and phalanges. I**njuries of the head and spine;** vertebral bones, dislocations of intra-vertebral bones, ruptures of the discs, ligamentous tears, injuries of the spinal cord. **Joint and soft tissue injuries;** dislocations, Strain, Sprains, subluxation, ligament and tendon injuries, neurovascular injuries, contusions, lacerations, muscle tears.

Teaching Strategies

Interactive/modified lectures, small group demonstrations, video interactions and small group discussions.

Teaching/ Learning Resources

Laptop, computers, projectors, whiteboards, maker pens, lesson plans, recommended textbooks, models and PowerPoint presentations.

Assessment Strategies

Formative: CAT(s) accounts for 40% of the total marks.

Summative: Final qualifying examinations accounts for 60% of the total marks

References/Further Readings

David, L., Hamblen, A., Hamish, R. and Simpson, W. (2007). *Adam's Outline of fractures*. 12th Ed. London: Churchill Livingstone, Elsevier

Dandy, D. and Edwards, D. (2009). *Essential Orthopaedics and Trauma.* 5th Ed. Edinburgh: Churchill Livingstone.

Kenneth, A, et al (2010). *Handbook of Fractures.* 4th Ed. Philadelphia: Wolters Kluwer,

McRae, E. M. (2008). *Practical fracture Management*5th Ed. Edinburgh: Elsevier Churchill Livingstone

Sherry, E. and Bokor, D. (1997). *Sports Medicine – Problems and Practical Management* 1st ed.,London: Greenwich Medical Media

Louis, S., David W. and Selvadurai, R.,*Apley's Syetem of Orthopaedics and Fractures.* 8th Ed

Prepared By: Name: _____

Signature: _____

Date: _____

Approved By: Name: _____

Signature: _____

Date: _____

KENYA MEDICAL TRAINING COLLEGE
DEPARTMENT OF ORTHOPAEDICS & TRAUMA MEDICINE

Course Outline
For
Certificate Course In Orthopaedic &Trauma Medicine

Lecturer's Details

Name:	
Qualifications:	
Phone Number:	
Email address:	
Signature:	
Date:	

Course Outline for Introduction to Research

Code: **RES 303**

Hours: **30**

Credit: **3**

Competence

Enable the learner to participate in research

Outcomes

1. Demonstrate understanding of research process
2. Apply principles of research in report writing.

Content Delivery

Week	Dates		Unit
	From	**To**	
Week 1:			Introduction to research
Week 2:			Introduction to research
Week 3			Introduction to research
Week 4			Introduction to research
Week 5:			Introduction to research
Week 6:			Principles of research
Week 7:			Principles of research
Week 8:			Principles of research
Week 9:			**Cats**
Week 10:			Principles of research
Week 11			Principles of research
Week 12:			Principles of research
Week 13:			Principles of research
Week 14:			Principles of research
Week 15:			Principles of research
Week 16:			Principles of research
Week 17:			Study Week
Week 18:			**End of Semester Examinations**

Module Content

Introduction to research; definition, concepts, purpose, objectives, importance, scope, types and characteristics. **Principles of research;** methodology, components, qualities, identification of research topic, literature review, study area, sampling, frame work, data collection, tools, analysis, interpretation, summary, discussion, conclusion, recommendations to research, ethical issues, authority, report writing, developing a report

Teaching Strategies

Interactive /modified lectures, community visits, small group discussions

Teaching/ Learning Resources

Flip chart, marker pens, masking tape, note books and pens, LCD projector, laptops,

Assessment strategies

Formative: CAT(s) accounts for 40% of the total marks.

Summative: End semester Examinations accounts for 60% of the total marks

References/ Further Readings

Brink, H. (2006). *Fundamentals of research methodology for healthcare professional practitioners*, second edition, Cape Town: JUTA and Company.

Creswell, W. (2009). *Research design: Qualitative, Quantitative, and Mixed methods approaches,* Los Angeles, SAGE Publications.

Kumar, R. (2005). *Research Methodology: A step by step guide for beginners*, Second edition, London: SAGE publishers.

Mugenda, M. and Mugenda, G. (1990). *Approaches to quantitative and qualitative research.* Nairobi: Africa Centre for Technology studies.

Prepared By: Name: _____

Signature: _____

Date: _____

Approved By: Name: _____

Signature: _____

Date: _____

KENYA MEDICAL TRAINING COLLEGE
DEPARTMENT OF ORTHOPAEDICS & TRAUMA MEDICINE

Course Outline
For
Certificate Course In Orthopaedic &Trauma Medicine

Lecturer's Details

Name:	
Qualifications:	
Phone Number:	
Email address:	
Signature:	
Date:	

Course Outline for Rehabilitation techniques

Code: **REH 303**

Hours: **30**

Credit: **3**

Competence

Enable the learner apply basic principles of rehabilitation

Outcomes

1. Explain rehabilitation techniques
2. Identify cases that require Orthopaedic Technology

3. Identify cases that require Physiotherapy
4. Identify cases that require Occupational Therapy

Content Delivery

Week	Dates		Unit
	From	**To**	
Week 1:			Introduction to rehabilitation techniques;
Week 2:			Introduction to rehabilitation techniques;
Week 3			Orthopaedic technology
Week 4			Orthopaedic technology
Week 5:			Orthopaedic technology
Week 6:			Orthopaedic technology
Week 7:			Orthopaedic technology
Week 8:			Physiotherapy
Week 9:			**Cats,**
Week 10:			Physiotherapy
Week 11			Physiotherapy
Week 12:			Physiotherapy
Week 13:			Occupational therapy
Week 14:			Occupational therapy
Week 15:			Occupational therapy
Week 16:			Occupational therapy
Week 17:			Study Week
Week 18:			**End of Semester Examinations**

Module Content

Introduction to rehabilitation techniques; definition, terminologies used, rehabilitation aids. **Orthopaedic technology;** definition, terminologies, types of orthopaedic appliances and indication of orthopaedic technology services, introduction to Biomechanics. **Physiotherapy**; definitions, terminologies used, forms, benefits and indications. **Occupational therapy;** definitions, forms, role, benefits and indications.

Teaching Strategies

Interactive lectures, small group demonstrations, small group discussions, tutorial interactions

Teaching/Learning Resources

Whiteboard, LCDs, Flip Charts, Laptops, Blackboard models, videos, marker pens, PowerPoint presentations,

Assessment Strategies

Formative: CAT(s) accounts for 40% of the total marks.

Summative: End semester Examinations accounts for 60% of the total marks

References/ Further Readings

Laleila, D. and Meriano, C. (2002). *Occupational Therapy Manual for Evaluation of Range of Motion and Muscle Structure.* 1st Edition.

Chisholm, T., Dolhi, O. and Schoeiber, R. (2004.) *Occupational Therapy Intervation. Resource Manual.* India:

Karen, B., Martin, C. and Richard, M. (2001). *Mobility Aids and Prostheses for a Child with Four Anomalus Limbs.* New Jersey. Apex Foot Products corp.

Prepared By: Name: _____

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Date: _____

Approved By: Name: _____

Signature: _____

Date: _____