

**UNIVERSITY OF NAIROBI
SCHOOL OF PUBLIC HEALTH**

MBChB LEVEL II SEMESTER 1 2017/18

BIostatistics & Epidemiology Timetable (HCH 200)

WEEK 1: REGISTRATION

WEEKS 2 – 15: 4th December 2017 – 23rd March 2018

DATE	TIME	TOPIC	LECTURER
11 th December 2017	2:00pm – 5:00pm	<u>Introduction to Biostatistics</u> <ul style="list-style-type: none"> • Definitions, types of data • Descriptive statistics for quantitative & qualitative variables: <ul style="list-style-type: none"> ✓ Measures of central tendency ✓ Measures of dispersion (including coefficient of variation, percentiles and quartiles) ✓ Data presentation (frequency distribution, histogram, scatter plot, Box and Whisker plot) 	Mr. Njeru
18 th December 2017	2:00pm – 5:00pm	<u>Introduction to Epidemiology</u> <ul style="list-style-type: none"> • Definitions, concepts & uses of Epidemiology • Sources of epidemiologic data • Natural history of disease <ul style="list-style-type: none"> ✓ Importance & stages • Disease determinants <ul style="list-style-type: none"> ✓ Definition, classifications • Disease prevention & control <ul style="list-style-type: none"> ✓ Purpose, levels: Primary, Secondary, Tertiary 	Mr. Nyabola
8 th January 2018	2:00pm – 5:00pm	<u>Introduction to Biostatistics Cont'd</u> <ul style="list-style-type: none"> • Definitions, types of data • Descriptive statistics for quantitative & qualitative variables: <ul style="list-style-type: none"> ✓ Measures of central tendency ✓ Measures of dispersion (including coefficient of variation, percentiles and quartiles) ✓ Data presentation (frequency distribution, histogram, scatter plot, Box and Whisker plot) 	Mr. Njeru
15 th January 2018	2:00pm – 5:00pm	<u>Measures of disease Frequency & Association</u> Frequency measures	Dr. Mweu

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		<ul style="list-style-type: none"> • Count, proportion, odds, rate • Incidence risk & rate • Prevalence • Relationship between incidence & prevalence • Other measures of disease frequency <ul style="list-style-type: none"> ✓ Case fatality rate, cause-specific mortality rate, proportional morbidity/mortality 	
22 nd January 2018		<u>Measures of Association</u> <ul style="list-style-type: none"> • Measures of association (Incidence risk/rate ratio {Relative risk}, Odds ratio) • Measures of effect in the exposed group (Attributable risk, Attributable fraction) 	Dr. Mweu
29 th January 2018	2:00pm – 5:00pm	<u>Probability distributions</u> <ul style="list-style-type: none"> • Introduction to Probability <ul style="list-style-type: none"> ✓ Mutually exclusive events ✓ Independent events • Probability distributions <ul style="list-style-type: none"> ✓ Normal/Gaussian ✓ Binomial ✓ Poisson 	Dr. Mweu
5 th February 2018	2:00pm – 5:00pm	<u>Epidemiological study designs</u> <ul style="list-style-type: none"> • Cross sectional studies • Case control studies 	Mr. Nyabola
12 th February 2018	2:00pm – 5:00pm	<u>Inferential statistics</u> <ul style="list-style-type: none"> • Sampling variability of a mean • Sampling variability of a proportion • Decision errors (Type I & II) 	Mr. Njeru
19 th February 2018	2:00pm – 5:00pm	<u>Epidemiological study designs Cont'd</u> <ul style="list-style-type: none"> • Cohort studies • Intervention studies 	Mr. Nyabola
26 th February 2018	2:00pm – 5:00pm	<u>Comparing two means and two proportions</u> <ul style="list-style-type: none"> • Confidence intervals • Hypothesis testing • Paired-t-test for paired data 	Dr. Mweu
5 th March 2018	2:00pm – 5:00pm	<u>Sampling</u> <ul style="list-style-type: none"> • Non-probability sampling (convenience, judgment, purposive) • Probability sampling (Simple random, Systematic random, Stratified random, multistage) 	Mr. Njeru
12 th March 2018	2:00pm –	<u>Association between two categorical</u>	

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	5:00pm	<u>variables</u> <ul style="list-style-type: none"> • Chi-square test • Fisher's exact test 	Mr. Njeru
19 th March 2018	2:00pm – 5:00pm	<u>Screening & Diagnostic tests</u> <ul style="list-style-type: none"> • Definitions • Disease eligibility for screening • Accuracy, precision & agreement • True and apparent prevalences • Predictive values • Receiver operating characteristic curves 	Mr. Nyabola