



جامعة الحكمة، الورن – نيجيريا

AL-HIKMAH UNIVERSITY, ILORIN – NIGERIA
Adeta Road, Adewole Housing Estate, P.M.B 1601, Ilorin, Kwara State

FACULTY OF NATURAL & APPLIED SCIENCES

DEPARTMENT OF PHYSICAL SCIENCES

B. Sc. MATHEMATICS PROGRAMME

2019/2020 ACADEMIC SESSION

COURSE OUTLINE FOR:

COURSE CODE: MAT202

COURSE TITLE: Elementary Differential Equations

3 CREDIT UNITS: 24 LECTURE PERIODS (MON. 10-11am TUE. 10-12 pm &)

LECTURE PERIOD	DATE	TOPIC	COURSE LECTURER
1	24th Feb. 2020	Ordinary Differential Equations <ul style="list-style-type: none">• Definitions, and classification of Ordinary Differential Equation	Dr. F. M. Jimoh
2	25th Feb. 2020	Derivation of Differential Equations	Dr. F. M. Jimoh
3	2nd Mar. 2020	Techniques for solving First Order Ordinary Differential Equations. <ul style="list-style-type: none">• Direct Integration	Dr. F. M. Jimoh
4	3rd Mar. 2020	Techniques for solving First Order Ordinary Differential Equations <ul style="list-style-type: none">• Variable separable equations.	Dr. F. M. Jimoh
5	9th Mar. 2020	Techniques for solving First Order Ordinary Differential Equations <ul style="list-style-type: none">• Equation reducible to variable separable• Homogenous Equations.	Dr. F. M. Jimoh
6	10th Mar. 2020	Techniques for solving First Order Ordinary Differential Equations <ul style="list-style-type: none">• Homogenous Equations continues• Exact Differential Equations	Dr. F. M. Jimoh
7	16th Mar. 2020	Techniques for solving First Order Ordinary Differential Equations <ul style="list-style-type: none">• Integrating Factor.• First order Linear Equation..	Dr. F. M. Jimoh
8	17th Mar. 2020	Techniques for solving First Order Equations <ul style="list-style-type: none">• The Bernoulli equations	Dr. F. M. Jimoh
9	23rd Mar. 2020	Second order Ordinary Differential Equations. <ul style="list-style-type: none">• Second order linear differential equations with constant coefficients.	Dr. F. M. Jimoh

		<ul style="list-style-type: none"> • Homogenous equation and Complimentary Functions. 	
10	24th Mar. 2020	<p>Techniques for solving second order Differential Equations.</p> <ul style="list-style-type: none"> • Auxiliary Quadratic equations. Type of roots of the auxiliary equation. • Complementary function. 	Dr. F. M. Jimoh
11	30th Mar. 2020	<p>Techniques for solving second order linear equations.</p> <ul style="list-style-type: none"> • Particular Integral when $F(x)$ is a Polynomials 	Dr. F. M. Jimoh
12	31st Mar. 2020	<p>Techniques for solving second order linear equations.</p> <ul style="list-style-type: none"> • Particular Integral when $f(x)$ is an Exponential functions and trigonometric functions 	Dr. F. M. Jimoh
13	6th Apr. 2020	<p>Techniques for solving second order linear equations.</p> <ul style="list-style-type: none"> • More Examples on the solution of Ordinary Differential Equations. 	Dr. F. M. Jimoh
14	7th Apr. 2020	Continuous Assessment test	Dr. F. M. Jimoh
15	13th Apr. 2020	Initial Value problems	Dr. F. M. Jimoh
16	14th Apr. 2020	Initial Value problems	Dr. F. M. Jimoh
17	20th Apr. 2020	The D operator Method.	Dr. F. M. Jimoh
18	21th Apr. 2020	The D operator Method.	Dr. F. M. Jimoh
19	27th Apr. 2020	The D operator Method.	Dr. F. M. Jimoh
20	28th Apr. 2020	Linear First Order Finite difference equations,	Dr. F. M. Jimoh
21	4th May. 2020	Linear First Order Finite difference equations,	Dr. F. M. Jimoh
22	5th May. 2020	Application of Differential Equations.	Dr. F. M. Jimoh
23	11th May. 2020	Application of Differential Equations.	Dr. F. M. Jimoh
24	12th May. 2020	Continuous Assessment test	Dr. F. M. Jimoh