

LESOTHO COLLEGE OF EDUCATION



COURSE OUTLINE

PROGRAMME	Diploma in Education (Pre-school and Foundation Phase)		
FACULTY	Education		
DEPARTMENT	Early Childhood Development and Special Education		
COURSE TITLE	Introduction to General Science		
COURSE CODE	SCI 1301P-A	NO OF CREDITS HOURS	3
COURSE TYPE	COMPULSORY	X	ELECTIVE
COURSE LECTURER	P. Ntsonyane	Date:	Semester 1, 2020
LECTURER'S CONTACTS	+266 62333461/59410080		
GROUP REPRESENTATIVES	Mr Makata Jane – 51657815 Sr Violet Tjatji – 68432500		
ABRIDGED COURSE SYNOPSIS			
<p>This is a basic course that lays grounds for founding a teacher. It intends to present a broad coverage of foundations of Education:- history of education and goals from day care centre to Pre-primary in Lesotho, concepts of education and theories of learning.</p>			
COURSE AIMS AND OBJECTIVES			
<p>By the end of this course students should be able to;</p> <ul style="list-style-type: none"> • Describe and use the periodic table: atomic structure, trends across groups and periods, metals and non-metals • Differentiate between types of mixtures with relevant examples • Describe air as mixture of gases • Demonstrate the properties of air 			

- Describe and perform separation techniques: filtration, decantation, simple distillation
- State the particle theory of matter
- Describe changes of state
- State kinetic theory of matter
- Perform experiment to demonstrate movement of particles (diffusion in liquids and gases)
- Prepare common gases: Oxygen, Carbon dioxide, hydrogen; and state their properties and uses
- Describe the water cycle, properties of water, uses of water
- Prepare lesson activities that will help young children to appreciate and learn scientific processes.


WEEK	CONTENT	
	TOPIC(S)	DESCRIPTION
1		Periodic Table <ul style="list-style-type: none"> • Atomic structure • Trends across groups and periods • Metals and non-metals, their properties and uses
2		Kinetic theory of matter <ul style="list-style-type: none"> • What matter consists of • How close the particles are in matter • How particles move in matter <ul style="list-style-type: none"> ○ Solids ○ Liquids ○ Gases
3		States of matter <ul style="list-style-type: none"> • Solids, liquids and gases • Changing from one state to another • Physical and chemical changes Assignment 1
4		Diffusion <ul style="list-style-type: none"> • In gases

		<ul style="list-style-type: none"> • In liquids
	5	<p>Solutions and mixtures</p> <ul style="list-style-type: none"> • Solvents and solutes • Solutions and suspensions • Methods of separation <ul style="list-style-type: none"> ○ filtration, ○ decantation, ○ simple distillation <p>TEST 1</p>
	6	<p>Preparation properties and uses of common gases</p> <ul style="list-style-type: none"> • Oxygen • Carbon dioxide • Hydrogen
	7	<p>Water</p> <ul style="list-style-type: none"> • Sources of water • Properties and uses of water • Water cycle • Purification of water • Water pollution and its effects
	8	<p>Air</p> <ul style="list-style-type: none"> • Its existence • Air as a mixture of gases • Properties of air <p>Assignment 2</p>
	9	<p>Scientific processes and skills</p> <ul style="list-style-type: none"> • Observation, classification, hypothesis, measuring, communication • Designing lesson activities that will help young children to appreciate and learn scientific processes. <p>TEST 2</p>

COURSE ASSESSMENT			
Assessment method	Description	Weight	Alignment to the course
Assignments	Topics 1, 2, 3, 6, 7, 8	25%	All objectives
Test	All topics	25%	All objectives
Course work		40%	
Examination		60%	Covers all the course objectives.

REFERENCES
<ol style="list-style-type: none"> Gallagher, R. et al (2013). <i>Complete Physical Sciences for LGCSE</i>. Oxford University Press Southern Africa (Pty) Ltd. Cape Town. Gallaher, R and Ingram, P. (2006). <i>New Coordinated Science: Chemistry</i>. Oxford University Press. London.

ADDITIONAL INFORMATION

FOR OFFICE USE	
Lecturer's Signature: 	Date: 17 February, 2020
HOD's Signature -----	Date-----