

## **COURSE CONTENTS**

### **BACHELOR OF EDUCATION (EARLY CHILDHOOD EDUCATION) PROGRAMME**

#### **YEAR TWO**

#### **SEMESTER ONE**

#### **ENGLISH LANGUAGE STUDIES II**

##### **CONTEXT**

The goal of the course is to sustain an unwavering focus on developing knowledge, skills, pedagogy and essential understanding required of a good English teacher to teach English Language and Literature in English from Early Childhood through to the Junior High School in Ghana. The course is to equip the student-teacher with an understanding of contemporary theories, concepts and practices in English Studies and teaching in enhancing literacy. The English courses introduce the student-teacher to the basics of language acquisition skills as well development strategies. The skills: listening, speaking, reading and writing, are given premium throughout the student-teacher's training. These skills are crucial for their academic endeavours, which they will further impart to the Ghanaian child. Though the current teacher training curriculum addresses it, intensifying it comes with numerous advantages to all stakeholders of Ghanaian education. The courses are designed in a manner that the sub-disciplines complement one another. There are ICT components imbedded in the teaching-learning activities to facilitate interactive and learner-focused approach. There is a symbiotic approach in the training of the teachers; as the trainees acquire these skills for personal use and also impart to the students.

The detailed course descriptions and objectives pay attention to the individual courses and attempt to draw synergy from “The National Teacher Education Curriculum Framework” and “National Teachers’ Standards for Ghana Guidelines”. The assessment portfolios would pay heed to Bloom’s Taxonomy of higher level questioning.

<b>Course Title</b>	<b>English Language Studies II</b>						
<b>Course Code</b>	<b>EBS 207</b>	<b>Course Level:</b>	<b>200</b>	<b>Credit Value:</b>	<b>2</b>	<b>Semester</b>	<b>1</b>
<b>Pre-requisite</b>	<b>Students have been introduced to aspects of the course in EBS 135. This course builds on the knowledge acquired in EBS 135.</b>						
<b>Course Delivery Modes</b>	<b>Face -to –face</b> [X]	<b>Practical Activity</b> <sup>2</sup>	<b>Work-Based Learning</b> <sup>3</sup>	<b>Seminars</b> <sup>4</sup>	<b>Independent Study</b> [X]	<b>e-learning opportunities</b> [X]	<b>Practicum</b> <sup>7</sup>
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	<p>This course offers further studies in grammar, comprehension and writing. The grammar topics will lay emphasis on subordination and co-ordination; types of sentences according to structure and function, and then direct and indirect speeches. Students will again be required to develop the skill of comprehending texts, using the context within which the text has been presented and also their own experiences. They will also be expected to read argumentative texts and extract meaning from them. Furthermore, they will be required to use their knowledge gained in these areas in communicating orally and in writing. The writing aspect of this course will focus on formal letters, argumentative essays and debates. This course will thus help students to use both their knowledge in grammar and writing, in presenting their assignments orally and in writing. This course will be delivered through whole class discussions, small group discussions, presentations as well as individual work. Student-teachers will be assessed through quizzes, short term project writing, assignments and examinations.</p> <p><b>NTS and NTECF requirements: NTS 1b,e,g,2b,c,f,3g,h,i,k NTECF 3, 5,and 7; p. 25.</b></p>						

Course Learning Outcomes <sup>8</sup> :	Outcomes	Indicators
including INDICATORS for each learning outcome	By the end of the course, the student will be able to:	
	1. join clauses using appropriate coordinating, correlative and subordinating conjunctions. (NTS 2c, 3h, NTECF bullets 7, p. 25)	1.1. discuss what clauses are as a way of refreshing memory of the previous course. 1.2. Discuss and identify correlative, subordinating and coordinating conjunctions, linking knowledge gathered from the previous course. 1.3. Working in groups to discuss the kinds of sentences and the conjunction that could be used to join them.
	2. identify the various sentence structures and use them in their writing. (NTS 1b, 2c, h, NTECF bullets 5 and 7)	2.1. lead students to discuss the different sentence structures
	3. answer questions based on expository and argumentative passages. (NTS 1b, 2c, h, NTECF bullets 5 and 7)	3.1 discuss the various sentence patterns 3.2 identify the patterns of given sentences. 3.3 write sentences to fit given patterns
4. generate sentences based on the basic sentence patterns. (NTS 1b, 2c, h, NTECF bullets 5 and 7)	4.1 discuss what formal letters are and their features 4.2 work in groups to generate ideas on a given formal letter. 4.3 work in groups to present a formal letter, incorporating all features of a formal letter.	

			4.4 discuss each group's letter in class to make it better.	
	5. write formal letters to appropriate offices and institutions. (NTS 1b, 2c, h, NTECF bullets 5 and 7)		5.1 discuss various kinds of passages (expository and argumentative) and answer questions on them, using skills learned in the previous course on comprehending texts.	
<b>Course Content</b>	<b>Units</b>	<b>Topics:</b>	<b>Sub-topics (if any):</b>	<b>Teaching and learning activities to achieve learning outcomes</b>
	1	1.Co-ordination and subordination	1. Coordination <ul style="list-style-type: none"> <li>a. Joining clauses of equal rank</li> <li>b. Use of coordinating conjunctions</li> </ul> 2. Subordination <ul style="list-style-type: none"> <li>a. Joining clauses of unequal rank</li> <li>a. Use of coordinating conjunctions</li> </ul> 3.Types of subordinate	Discuss what clauses are as a way of refreshing memory of the previous course.  Discuss the conjunction in joining two simple sentences. Then introduce the concept of coordination.  Discuss and identify correlative, subordinating and coordinating conjunctions, linking knowledge gathered from the previous course.  Discuss the subordinating conjunctions  Work in groups to discuss the kinds of

	2.	2. Sentence	<p>clauses:</p> <ul style="list-style-type: none"> <li>i. nominal</li> <li>ii. relative/adjectival</li> <li>iii. adverbial</li> <li>iv. reason</li> <li>v. manner</li> <li>vi. purpose</li> <li>vii. place</li> <li>viii. time</li> <li>ix. concession, etc.</li> </ul> <p>1. Mood</p> <ul style="list-style-type: none"> <li>a. declarative</li> <li>b. imperative</li> <li>c. exclamatory</li> <li>d. interrogative</li> </ul> <p>2. Structure</p> <ul style="list-style-type: none"> <li>a. simple</li> <li>b. compound</li> <li>c. complex</li> </ul>	<p>sentences and the conjunction that could be used to join them.</p> <p>Lead students to discuss the different sentence structures</p> <p>Discuss the various sentence patterns</p> <p>Identify the patterns of given sentences.</p> <p>In groups, let students write sentences to fit the given patterns</p> <p>With illustrations, discuss the structure of the active voice.</p> <p>Discuss the structure of the passive voice</p> <p>Discuss the uses of the voices</p> <p>Guide students to make direct statements. Discuss the features of direct statements.</p>
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	3.	3. Active and Passive voices	<p>d. compound complex</p> <p>3. Basic Sentence Patterns</p> <p>a. SV</p> <p>b. SVA</p> <p>c. SVC</p> <p>d. SVO</p> <p>e. ASVO</p> <p>f. SVOO, etc.</p>	<p>Guide them to convert the direct statements to indirect. Discuss the salient features of indirect statements and others.</p> <p>Let students brainstorm on the word. Provide illustrative sentences to guide students in discussing the concepts</p> <p>Write sentences with errors. Let students discuss the errors. Introduce and discuss the concepts.</p> <p>With word game, guide students in spelling</p>
	4.	4. Direct and Indirect (Reported speech)	<p>1. The Active Voice - features: Subject, followed by verb and object, etc.</p> <p>2. The Passive Voice – features:</p> <p>a. changes that take place in the verb, position of subject and object, etc.</p> <p>3. Uses of the active and passive voice</p> <p>1. Features of Direct Speech – use of</p>	<p>Discuss what formal letters are and their features</p> <p>Guide students to work in groups to generate ideas on a given formal letter and present a formal letter, incorporating all features of a formal letter.</p> <p>Discuss each group's letter in class to make it better.</p> <p>Provide scenarios for students to describe the</p>

			quotation marks, etc. 2. Features of Indirect (Reported) speech	kind of argumentation. Discuss argumentation and types. Guide students to discuss the features of debate
	5.		1.Ambiguity 2.Dangling and Misplaced modifiers	
	6.	5.Error Analysis	3. Concord errors - Error of preposition 4. Spelling errors, etc.	Discuss various kinds of passages (expository and argumentative) and answer questions on them, using skills learned in the previous course on comprehending texts.
		1. Writing	1.Formal Letter Writing a. Formal letters i. letters to the press, ii. for employment, iii. education offices 2.Features a. address, date, salutation, heading,	

	7	7.Argumentative Essay/Debate	<p>b. Body – introduction, development and conclusion</p> <p>(Attention should be paid to letters for study leave, promotion/upgrading, transfer, maternity leave, etc.)</p> <p>1.Types of Argumentative Essay</p> <p>2. Features of a Debate</p> <p>a. Introduction</p> <p>i. vocative</p> <p>ii. declaring purpose and motion</p> <p>iii. debating the points raised by the other side</p> <p>iv. presentation of points raised by the other side</p> <p>v. raising points for your side</p> <p>vi. support points with facts &amp; figures</p> <p>vii. conclusion</p> <p>Comprehension based on expository and argumentative texts</p>	
	8	8.Comprehension		



<b>Course Assessment Components<sup>9</sup> : (Educative assessment of, for and as learning)</b>	<p>Component 1: Formative assessment (40%)</p> <p>Summary of assessment methods: Group project on the types of essay (10%); Individual assignments- coordination and subordination (10%); and a quiz – sentence, error analysis and comprehension (20%)</p> <p>Assessing Learning Outcomes: 1, 2, 3, 4 and 5.</p>
	<p>Component 2: Summative assessment: (60%)</p> <p>End of semester examination on units 1 – 8 to develop core skills such as knowledge application, personal development. The examination will adopt varied approaches; from short answer questions to essay questions.</p> <p>Assessing Learning Outcomes: 1, 2, 3, 4 and 5.</p>
<b>Instructional Resources</b>	Projector and computer, mobile phones, sampled expository and argumentative passages
<b>Required Text (core)</b>	Quirk, Randolph, Greenbaum, Sidney et al. (1985). <i>A comprehensive grammar of English language</i> . Essex: Longman.
<b>Additional Reading List<sup>10</sup></b>	<p>Cobuild, (1990). <i>English grammar</i>. London: Harper Collins.</p> <p>Cobuild, (1992). <i>English usage</i>. London: Harper Collins.</p> <p>Clouse, B. F. (1997). <i>Transitions: From reading to writing</i>. Boston: McGraw-Hills.</p> <p>Crystal, D. (1998). <i>The Cambridge encyclopaedia of language</i>. Cambridge: CUP.</p> <p>Johnson, K. (1982). <i>Communicate in writing</i>. Essex: Longman.</p>

	Leech, G. (1989). <i>English grammar and usage</i> . London: Edward Arnold.
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	Ploeger, K.M. (1999). <i>Simplified writing skills</i> . Illinois: NTC Publishing Group. Press.
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	Rozakis, L. E. (2003). <i>Grammar and style</i> . Indiana: Alpha Books.
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## INTRODUCTION TO SEMANTICS

### CONTEXT

The goal of the course is to sustain an unwavering focus on developing knowledge, skills, pedagogy and essential understanding required of a good English teacher to teach English Language and Literature in English from Early Childhood through to the Junior High School in Ghana. The course is to equip the student-teacher with an understanding of contemporary theories, concepts and practices in English Studies and teaching in enhancing literacy. The English courses introduce the student-teacher to the basics of language acquisition skills as well development strategies. The skills: listening, speaking, reading and writing, are given premium throughout the student-teacher's training. These skills are crucial for their academic endeavours, which they will further impart to the Ghanaian child. Though the current teacher training curriculum addresses it, intensifying it comes with numerous advantages to all stakeholders of Ghanaian education. The courses are designed in a manner that the sub-disciplines complement one another. There are ICT components imbedded in the teaching-learning activities to facilitate interactive and learner-focused approach. There is a symbiotic approach in the training of the teachers; as the trainees acquire these skills for personal use and also impart to the students.

The detailed course descriptions and objectives pay attention to the individual courses and attempt to draw synergy from “The National Teacher Education Curriculum Framework” and “National Teachers’ Standards for Ghana Guidelines”. The assessment portfolios would pay heed to Bloom’s Taxonomy of higher level questioning.

Course Title	<b>INTRODUCTION TO SEMANTICS</b>						
Course Code	<b>EBS 280</b>	Course Level:	200	Credit Value:	3	Semester	1
Pre-requisite	Students have basics in the concepts from senior high school.						
Course Delivery Modes	Face -to –face <b>X</b>	Practical Activity <b>X</b>	Work-Based Learning <sup>3</sup>	Seminars <sup>4</sup>	Independent Study <b>X</b>	e-learning opportunities <b>X</b>	Practicum <sup>7</sup>
Course	This course studies some of the areas covered by linguists in their attempts to understand the meaning of “meaning”.						

Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	Semantics, as an area of study, is very relevant to understanding the use of language. In the course of the semester, we will explore, among others, semantic theories; different types of meaning (e.g. denotative, connotative, stylistic, thematic, etc.); components of meaning; sense relations of lexemes; idiomatic expressions and collocations. The mode of delivery for this course will be discussions, group work, audio-visuals and individual work. Students' personal experiences that relate to the course will be brought on board for analysis and discussion. Assessment will be done through quizzes, report writing, assignments and examinations. The course is in line with NTS 1a, 1b, 2c, NTECF bullets 1,5, and 7; p. 25.			
Course Learning Outcomes <sup>8</sup> : including INDICATORS for each learning outcome	<b>Outcomes</b> By the end of the course, the student will be able to: <ol style="list-style-type: none"> <li>1. examine key conceptualisations on the definition of meaning (NTS 2c)</li> <li>2. discuss the sense relation between the English words (NTECF bullet 3 and 5, p. 25)</li> <li>3. identify the role of context in determine meaning (NTECF bullet 7, p. 25)</li> <li>4. identify factors that affect changes in word meaning. (NTECF bullet 5, p. 25)</li> </ol>		<b>Indicators</b> 1.1. discuss the major concept 1.2. discuss the meaning of meaning  2.1. examine the sense relations among similar English words 2.2. discuss the broader view of sense relation 3.1. create scenarios with a word 3.2. examine their meaning and context. 3.3. explain the context and meaning  4.1. brainstorm on factors that affect meaning 4.2. create scenarios to illustrate 4.3. discuss the factors	
Course Content	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	1	Introduction	1. Introduction to Course Defining Semantics The meaning of "Meaning"  Semantics in relation to other aspects	Create scenarios to guide students to discuss the concept of semantics. Tease students on the meaning of meaning  Discuss the link between Semantics and other disciplines

			of language: grammar and pragmatics	
	2	Types of Meaning	Types of Meaning Conceptual vs other types of meaning – collocational, stylistics, affective, etc.	Guide students to discuss types of meaning
	3	Context & Meaning	Defining Context Contextual Meaning	Create scenarios with a word Examine their meaning and context. Explain the context and meaning
	4	Sense Relation/ Lexical Semantics	Word/Sentence/Utterance Meaning  Sense relations of single terms - synonymy/antonymy/homonymy/polysemy/homonymy	Examine the sense relations among similar English words Discuss the broader view of sense relation Discuss the key terms of Semantics
	5	Changes in the meanings of word	Related Meaning of different terms- Inclusion/ Complementation/overlapping Paradigmatic/ Syntagmatic Sense Relations	Brainstorm on factors that affect meaning Create scenarios to illustrate Discuss the factors that lead to changes in meaning
	6.	Theories of semantics	Changes in the meanings of word Degeneration Intensification Weakening Syndecdoche Metonymy Metaphorical Extension	Group students to find and present information on the theories of Semantics Guide them to discuss the theories, detailing their differences.

			Traditional semantics Contextualism Mentalism Generative semantics	
Course Assessment Components <sup>9</sup> : (Educative assessment of, for and as learning)	<p>Component 1: Formative assessment (40%) Summary of assessment methods: Individual assignments- concept of meaning (10%); group presentation (10%) and a quiz – communication and lexical relations (20%) Assessing Learning Outcomes: 1, 2, 3 and 4.</p> <p>Component 2: Summative assessment: (60%) End of semester examination on units 1 – 6 to develop core skills such as knowledge application and personal development Assessing Learning Outcomes: 1, 2, 3 and 4.</p>			
Instructional Resources	Projectors and computers, Audio-visuals, Dictionary and Phones			
Required Text (core)	<p>Sekyi- Baidoo, Y.(2002). <i>Semantics: An introduction</i>. Kumasi: Wilas Press Ltd.</p> <p>Lyons, J., Thakur, D. (2009). <i>Linguistics simplified: Semantics</i>. New Delhi: Bharati-Bhawan</p>			
Additional Reading List <sup>10</sup>	<p>Lyons, John. (1995). <i>Linguistic semantics: An introduction</i>. Cambridge: Cambridge University Press.</p> <p>Lyons, John. (1981). <i>Language and linguistics: An introduction</i>. Cambridge University Press</p> <p>Lyons, John. (1977). <i>Semantics I</i>. Cambridge. Cambridge University Press</p> <p>Lyons, John. (1977). <i>Semantics II</i>. Cambridge. Cambridge University Press</p> <p>Palmer, F.R. (1981). <i>Semantics</i>. Cambridge University Press</p> <p>Yule, G. (1985). <i>The study of language</i>. Cambridge University Press</p>			

	Palmer, F.R. (1981). <i>Semantics</i> . Cambridge University Press
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
## GENERAL PHYSICS

### CONTEXT

Physics, the study of matter, energy and their interactions, is a universal enterprise, which plays a key role in the future progress of humankind. Energy and work (energy as defined as the ability to do work) occupy an important part of our ordinary lives, and are among the most important topics in physics. Work, in terms of a physics related definition, has quite a different meaning than the type of work about which we normally think. In physics, work is performed only when an object is moved in the direction of an applied force. Energy in physics is defined as the ability to do work. Doesn't this seem logical? For the more energy you have, the more work you can accomplish and the more activities you can engage in. Physics is an exciting intellectual adventure that inspires young people and expands the frontiers of our knowledge about Nature. The General Physics course is intended to provide fundamental knowledge needed for the future technological advances that extends and enhances our understanding of the universe.

<b>Course Title</b>	<b>General Physics</b>						
<b>Course Code</b>	<b>EBS 227</b>	<b>Course Level:</b>	<b>200</b>	<b>Credit Value:</b>	<b>3</b>	<b>Semester</b>	<b>1</b>
<b>Pre-requisite</b>							
<b>Course Delivery Modes</b>	<b>Face -to - face <sup>1</sup></b>	<b>Practical Activity <sup>2</sup></b> <input type="checkbox"/>	<b>Work-Based Learning <sup>3</sup></b> <input checked="" type="checkbox"/>	<b>Seminars <sup>4</sup></b>	<b>Independent Study <sup>5</sup></b> <input checked="" type="checkbox"/>	<b>e-learning opportunities <sup>6</sup></b> <input checked="" type="checkbox"/>	<b>Practicum <sup>7</sup></b> <input type="checkbox"/>



						
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	This course will enable the students to deepen their knowledge and skills in topics treated in Integrated Science Physics at the senior high school level. It covers the following topical areas: measurement, density and relative density; forces, motions, machines, electronics, light, sound, heat, electricity and magnetic energy. The approaches that would be used in the delivery of this course should prepare trainees to ensure the learning progress of all students by projecting gender roles and issues relating to equity and inclusivity. (NTECF Pillar 1; NTS 2b, 2c, p13; 3e-3m, 3p, p14)					
<b>Course Learning Outcomes<sup>8</sup>: including INDICATORS for each learning outcome</b>	<b>Outcomes:</b> Upon successful completion of the course, learners will be able to:			<b>Indicators</b>		
	1. Develop skills of measurement involving the use of instruments. (NTS 2b, 2c, p13; 31, 3m, p14)			Develop skills of measurement-oriented activities to demonstrate the concept of measurement.		
	2. Identify the types of forces and their applications. (NTS 2b, 2c, P13,13; 3f, 3j, p14)			Describe the nature of forces in terms of: Contact forces and Field forces  Establish the relationship between MA, VR and E.		
	3. . Gain an understanding of the basic principles and the experimental basis of optical instruments. (NST 2b, 2c, p12; 3g,3j, 3m, p14)			Demonstrate knowledge in the laws that govern the reflection and refraction of light on plane, curved and permeating surfaces.		
	4. Acquire knowledge and understanding in the concept of current electricity and electronics. (NST 2b, 2c, p13; 31,3m, p14)			<ul style="list-style-type: none"> <li>• Demonstrate the concept of current electricity and be able to distinguish between parallel and series arrangement of cells and resistors.</li> </ul>		

				<ul style="list-style-type: none"> <li>Establish the relationship to compute the effective resistance of resistors in: Parallel</li> <li>Series</li> <li>Develop skills and competence to differentiate between electrical components and electronic components</li> </ul>
	5. Gain an understanding in magnetism. (NTS 2b, 2c, p13;3f, 3j, p14)			<ul style="list-style-type: none"> <li>Discuss the various ways that magnets can be made.</li> <li>Identify the application and uses of magnets in the homes and industries.</li> <li>Demonstrate an understanding in the principles and operation of the magnetic compass</li> </ul>
<b>Course Content</b>	<b>Units</b>	<b>Topics:</b>	<b>Sub-topics (if any):</b>	<b>Teaching and learning activities to achieve learning outcomes</b>
	1.	Measurement	<ul style="list-style-type: none"> <li>Fundamental quantities</li> <li>Derived quantities and units</li> <li>Dimensional analysis.</li> <li>Mass and weight</li> <li>Measurement of time.</li> <li>Measurement of temperature</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrate what is meant by mass, length, time, luminous intensity, current, temperature, amount of substance and their units.</li> <li>Explain what is meant by S.I. units</li> <li>Explain what is meant by derived units including volume, density, force, work, power, speed, velocity, acceleration and their units.</li> <li>Definition and expressions involving derived quantities.</li> <li>Distinction between mass and weight.</li> <li>Demonstrate the use of lever balance and chemical / beam balance to measure mass and spring balance to measure weight.</li> <li>Demonstrate the use of clock to measure time with heartbeat, pendulum and stopwatch / clock.</li> </ul>

			<ul style="list-style-type: none"> <li>• Demonstrate the use of thermometer to measuring temperature in degrees Celsius and Kelvin.</li> <li>• Explain the Inter-conversion of Kelvin to degree Celsius and vice – versa with examples.</li> <li>• Explain the movement of heat between two bodies to establish thermal equilibrium and their uses and limitations.</li> </ul>
2.	Density and Relative Density`33	<ul style="list-style-type: none"> <li>• Density</li> <li>• Relative Density</li> <li>• Archimedes principle</li> </ul>	<ul style="list-style-type: none"> <li>• Explain floatation by the use of the principle of density e.g. Hydrometer, balloon.</li> <li>• Explain the rationality behind Archimedes principle to the measurement of relative density.</li> <li>• Experimental determination for solids / liquids</li> </ul>
3.	Motion and Pressure	<ul style="list-style-type: none"> <li>• Particles in motion</li> <li>Types of motion</li> <li>equations of motions</li> <li>graphs of motion</li> <li>Newton’s laws of motion</li> <li>• Pressure</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the use of second law to derive <math>F = ma</math></li> <li>• Perform simple calculations on motions</li> <li>• Demonstrate the phenomenon of pressure in liquids.</li> <li>• Perform simple calculation on pressure.</li> <li>• Explain the application of pressure in liquids.</li> </ul>
4.	Forces	<ul style="list-style-type: none"> <li>• Definition of force and turning effects of forces</li> <li>• Equilibrium of forces</li> <li>• Principles of moments</li> </ul>	<ul style="list-style-type: none"> <li>• Explain what is meant by force</li> <li>• Distinguish between the types of forces: Gravitational, magnetic, electrostatic, frictional, viscosity, capillarity, surface tension.</li> <li>• Explain adhesion and cohesion forces in liquids, turning forces, linear forces, static forces, etc.</li> <li>• Demonstrate the moments of a force about a point and its measurement.</li> <li>• Demonstrate parallel forces acting in one plane.</li> <li>• Demonstrate parallel forces in equilibrium.</li> <li>• Explain the use of lever devices in everyday use e.g.</li> </ul>

			<ul style="list-style-type: none"> <li>• Crow-bar, wheel barrow.</li> <li>• Discuss the moments of a force / Torque</li> <li>• Explain the simple treatment of a couple e.g. turning of water tap.</li> <li>• Demonstrate the center of gravity and stability; unstable, stable and neutral equilibrium.</li> <li>• Explain the determination of center of gravity of regular and irregular objects using the plumb line method.</li> <li>• Explain the determination of center of gravity of regular and irregular lamina.</li> </ul>	
	5.	Energy Work and Power	<ul style="list-style-type: none"> <li>• Sources of Energy</li> <li>• Forms of Energy,</li> <li>• Energy transformation,</li> <li>• Law of conservation of energy, work</li> <li>• Power</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss forms of energy and their transformations.</li> <li>• Perform simple calculations on work, power and energy</li> <li>• Explain the relation between work, power and energy.</li> </ul>
	6.	Machines	<ul style="list-style-type: none"> <li>• Simple machines</li> <li>• Classes of levers</li> <li>• Mechanical Advantage</li> <li>• Velocity Ratio</li> <li>• Efficiency</li> </ul>	<ul style="list-style-type: none"> <li>• Explain levers pulleys and inclined planes with practical examples</li> <li>• Distinguish between the classes of levers with practical examples.</li> <li>• Perform simple calculations involving Mechanical advantage, velocity ratio and efficiency of machines</li> </ul>
	7	Basic Electronics	<ul style="list-style-type: none"> <li>• Conductors</li> <li>• Insulators</li> <li>• Semi- Conductors</li> </ul>	<ul style="list-style-type: none"> <li>• Distinguish between conductors and insulators with practical examples.</li> <li>• Explain doping of semi-conductors with examples</li> <li>• Demonstrate forward bias and reverse bias using a light emitting diode and a power diode.</li> </ul>

	8	Optics	<ul style="list-style-type: none"> <li>• Reflection of light Regular and irregular reflection, laws of reflection formation of images. Characteristics of images.</li> <li>• Magnification <math display="block">m = \frac{v}{u}</math></li> <li>• Refraction of light</li> <li>• Mirror formula <math display="block">\frac{1}{u} + \frac{1}{v} = \frac{1}{f}</math></li> <li>• Refraction of light at curved mirrors</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate reflection of light by use of a mirror.</li> <li>• Demonstrate magnification by use of a magnifying glass</li> <li>• Demonstrate refraction by use of a rod placed in a transparent glass half filled with water.</li> <li>• Explain Snell's law and perform some computations with it.</li> <li>• Explain the use of convex and concave mirror uses in the security and automobile industries.</li> </ul>
	9	Current Electricity and Magnetism	<ul style="list-style-type: none"> <li>• series and parallel: arrangements of cells and resistor.</li> <li>• Loss volt and internal resistance of batteries.</li> <li>• Measurement of electric current, potential difference, resistance, emf and internal resistance of a cell.</li> <li>• Ohms law</li> </ul>	<ul style="list-style-type: none"> <li>• Explain with clear examples what is meant by a resistor</li> <li>• Distinguish between the arrangement of resistors using practical examples in the class.</li> <li>• Demonstrate the use of a voltmeter, ammeter, ohm meter in the measuring of potential difference, current and resistance respectively.</li> <li>• Derive and perform calculations using ohms law to explain the effective resistance, current and voltage drop within an electrical circuit.</li> <li>• Demonstrate the properties of magnets using two bar magnets with one suspended on a thread.</li> <li>• Demonstrate the production of temporary magnet using a coil and a nail.</li> </ul>

		$V = IR, \text{Emf} = I(r + R)$ <ul style="list-style-type: none"> <li>• Magnetism</li> </ul> Properties of magnets Types of magnets Uses of magnets																	
<b>Course Assessment Components<sup>9</sup> :</b> <b>(Educative assessment of, for and as learning)</b>	<p>A combination of formative and summative assessment including group tasks, quizzes, individual and take home assignment and examination will be used.</p> <p><b>Assessment weighting:</b></p> <table> <tr> <td><b>Component 1: Formative assessment</b></td> <td><b>40%</b></td> </tr> <tr> <td>Group Presentations 1 (CLO 1, 2)</td> <td>10%</td> </tr> <tr> <td>Quiz (CLO 3, 4, 5)</td> <td>10%</td> </tr> <tr> <td>Group tasks (CLO 8,9)</td> <td>10%</td> </tr> <tr> <td>Individual assignment (CLO 7)</td> <td>10%</td> </tr> <tr> <td><b>Component 2: Summative assessment</b></td> <td><b>60%</b></td> </tr> <tr> <td>Practical Examinations (science process skills)</td> <td>20%</td> </tr> <tr> <td>End-of-Semester Examinations</td> <td>40%</td> </tr> </table> <p>CLO 1-9.</p>			<b>Component 1: Formative assessment</b>	<b>40%</b>	Group Presentations 1 (CLO 1, 2)	10%	Quiz (CLO 3, 4, 5)	10%	Group tasks (CLO 8,9)	10%	Individual assignment (CLO 7)	10%	<b>Component 2: Summative assessment</b>	<b>60%</b>	Practical Examinations (science process skills)	20%	End-of-Semester Examinations	40%
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End-of-Semester Examinations	40%																		

	Students will be graded as follows:  A=80-100%; B+=75-79%; B =70-74%, C+ =65-69%, C= 60-64%, D+=55-59, D=50-54, E< 50 (Fail)
<b>Instructional Resources</b>	Computer assisted instruction, Interactive simulations, Smart phones, Google, YouTube, PowerPoint Projections
<b>Required Text (core)</b>	Freedman, R. A. & Yound, H. D. (2008). <i>University physics</i> . (12 <sup>th</sup> ed.). Pearson and Addison Wesley.
<b>Additional Reading List</b> <sup>10</sup>	Gibbs, K. (2003). <i>Advanced Physics</i> . Cambridge: Cambridge University Press.  Hudson, N. (1995). <i>Soil conservation</i> (3 <sup>rd</sup> ed.). London: B. T. Batsford Limited  Jewett, J.W. & Sarway, R. A. (2002). <i>Principles of physics</i> . (3 <sup>rd</sup> ed.) Harcourt College publishers. Resruer, R., Halliday, D., & Walker, J. (2010). <i>Fundamentals of physics</i> . John Wiley & Sons Inc.

## GENERAL CURRICULUM STUDIES

### CONTEXT

Teachers play crucial role in the process of curriculum delivery because they are the mediators between the curriculum and the learners. Their interpretation of the curriculum affects the implementation of the curriculum and the learning outcomes of students. It is therefore important to equip prospective teachers with the knowledge and skills they need to effectively implement curriculum at the basic school level. This course orients the prospective basic school teacher to the basic school curriculum and other basic curriculum materials such as textbooks and teachers' guide and how they are used to promote effective teaching and learning.

<b>Course Title</b>	<b>General Curriculum Studies</b>						
<b>Course Code</b>	<b>EBS 215</b>	<b>Course Level:</b>	<b>200</b>	<b>Credit Value:</b>	<b>3</b>	<b>Semester</b>	<b>1</b>
<b>Pre-requisite</b>							
<b>Course Delivery Modes</b>	<b>Face -to -face</b> <sup>1</sup>	<b>Practical Activity</b> <sup>2</sup>	<b>Work-Based Learning</b> <sup>3</sup>	<b>Seminars</b> <sup>4</sup>	<b>Independent Study</b> <sup>5</sup>	<b>e-learning opportunities</b> <sup>6</sup>	<b>Practicum</b> <sup>7</sup>
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	<p>This course is designed to offer students the opportunity to discuss the structure and content of the school curriculum. Topics to discuss include, the concept of curriculum including the components of curriculum, differences between syllabus and curriculum, types of curriculum and factors affecting the sequencing of the content of the curriculum. Students will also be given the opportunity to discuss the general and specific objectives of the curriculum, as well as the mode of instruction and assessment prescribed in the curriculum. Course discussions will also include an emphasis on the standards-based curriculum, by focusing on the differences between objective-based and standards-based curriculum, terminologies associated with standards-based curriculum and issues such as, assessment, expectations/roles of teachers in implementing standards-based curriculum.</p> <p><b>NTECF, p20, NTS 1a, 1c and 1f p12.; NTS 2b, 2c, 2d and 2f, p13; NTS 3f, 3k, 3o and 3p, p14.</b></p>						
<b>Course Learning Outcomes</b> <sup>8</sup> : <b>including</b>	<b>Outcomes:</b>			<b>Indicators</b>			
	<b>The course will enable students to be able to:</b>						
	1. explain what curriculum is.			1.1 Explain what curriculum is, giving examples			



<b>INDICATORS for each learning outcome</b>	<b>NTS 1c &amp; 1f, p12; 2b, 2c &amp; 2d, p13; 3k p14.</b>	1.2 Explain what syllabus is, giving examples
	2. distinguish between curriculum and topical outline of content that should be covered in the curriculum. <b>NTS 1c &amp; 1f, p12; 2b, 2c &amp; 2d, p13; 3k p14.</b>	2.1 explain the difference between curriculum and syllabus 2.2 explain the relationship between the general objectives of curriculum and specific objectives
	3. explain the structure and content of school curriculum. <b>NTS 1c &amp; 1f, p12; 2b, 2c &amp; 2d, p13; 3k, 3o, 3p, p14.</b>	3.1 describe the general features of the school curriculum 3.2 Provide the overview of the content of the school curriculum (including the profile dimensions and their implication for teaching and assessment). 3.3 Explain issues relating to sequencing and progression of topics 3.4 Explain the relationship between concepts and their implications for teaching
	4.0 explain the relationship between the general objectives and specific objectives of the curriculum  <b>NTS 1c &amp; 1f, p12; 2b, 2c &amp; 2d p13; 3k p14.</b>	4.1 outline and explain the relationship between the general objectives and specific objectives of the basic school curriculum.  4.2 outline and explain the implications of the relationship between the general objectives and specific objectives for teaching and learning
	5.0 explain why teachers should have in-depth	5.1 outline and explain the reasons why teachers need to

<p>knowledge about the whole curriculum but not only topical outline of content to be covered.</p> <p><b>NTS 1c &amp; 1f, p12; 2b, 2c &amp; 2d, p13; 3k p14.</b></p>	<p>properly digest the rationale, the general aims and objectives, the specific minimum objectives, national minimum standard, the scope of the syllabus, approaches to teaching and learning among others before they start using the curriculum to teach.</p>
<p>6.0 distinguish between objective-based curriculum and standard-based curriculum.</p> <p><b>NTS 1c &amp; 1f, p12; 2b, 2c &amp; 2d p13; 3k p14.</b></p>	<p>6.1 explain what objective-based curriculum is.</p> <p>6.2 explain what standard-based curriculum is</p> <p>6.3 explain the distinction between objective-based and standard-based curriculum.</p>
<p>7.0 apply the knowledge gained through the course to implement both objective-based curriculum and standard-based curriculum.</p> <p><b>NTS 1a, 1c &amp; 1f, p12; 2b, 2c, 2d &amp; 2f, p13; 3f, 3k, 3o &amp; 3p, p14.</b></p>	<p>7.1 outline and explain the processes involved in the implementation of objective-based curriculum</p> <p>7.2 outline and explain the processes involved in the implementation of standard-based curriculum</p> <p>7.3 explain the need to take factors such as cultural, linguistic and socio-economic background of students into consideration in implementing the school curriculum.</p>
<p>8.0 Outline and explain the basic curriculum materials and how they are used to promote learning at the basic school level.</p> <p><b>NTS 1c &amp; 1f, p12; 2b, 2c, 2d &amp; 2f, p13; 3k p14.</b></p>	<p>8.1 Define what basic curriculum materials are</p> <p>8.2 identify the various basic curriculum materials</p> <p>8.3 outline and explain the criteria for selection of the various curriculum materials</p> <p>8.4 demonstrate the use of each of the curriculum materials</p>

Course Content	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	1	Meaning of Curriculum	<ul style="list-style-type: none"> <li>- Explanation of curriculum</li> <li>- Explanation of syllabus</li> </ul>	<ul style="list-style-type: none"> <li>- Project for students to explore the various conceptualizations of curriculum and syllabus in literature, in mixed ability groupings.</li> <li>- Discussion of what is a curriculum and what is a syllabus to create a shared understanding of the meaning of these two constructs.</li> </ul> <p><b>NB:</b> For each of the approaches, encourage female trainees to play major roles, especially they should be given leadership responsibility. This will prepare them to be able to provide equal opportunities for boys and girls when they become qualified teachers.</p>
	2	Distinction between curriculum and syllabus	<ul style="list-style-type: none"> <li>- Difference between curriculum and syllabus</li> </ul>	<ul style="list-style-type: none"> <li>- Debates on a theme that will enable trainees to understand the distinction between curriculum and syllabus. For example. "Curriculum mean different thing to different people"</li> <li>- Discussion method will be used to provide the opportunity to create a shared understanding of the distinction between curriculum and syllabus.</li> </ul>
	3	The structure and content of the Ghanaian Basic school curriculum	<ul style="list-style-type: none"> <li>- General features of the school curriculum</li> <li>- Overview of the content of the school curriculum</li> <li>- Sequencing and progression of topics</li> <li>- Comparison between the structure and</li> </ul>	<ul style="list-style-type: none"> <li>- Case Study/Project for groups (mixed ability groups) of trainees to study the general features, content, and sequencing and progression of topics in the school curriculum in one subject area at the basic school level.</li> <li>- Use jigsaw method to help trainees to discuss the general features, content, and sequencing and progression of topics in the various school curricula they studied in their previous case study groups</li> <li>- Use the question and answer method to summarise the</li> </ul>

		content of the Ghanaian basic school curriculum and that of some developed countries	<ul style="list-style-type: none"> <li>features of the school curriculum, the overview of the content of the curriculum and sequencing and progression of topics.</li> <li>- Compare the structure and content of the Ghanaian basic school curriculum and that of the of some developed countries</li> </ul>
4	Objectives of the Ghanaian Basic school curriculum	<ul style="list-style-type: none"> <li>- The relationship between the general objectives and specific objectives of the curriculum</li> </ul>	<ul style="list-style-type: none"> <li>- Use jigsaw method to get students to investigate the relationship between the general objectives and specific objectives in one subject area at the basic school level.</li> <li>- Use discussion method to summarise the relationship between the general objectives and the specific objectives</li> </ul>
5	Why the study of the school curriculum?		<ul style="list-style-type: none"> <li>- Use discussion method to explain why teachers need to acquire in-depth understanding of whole curriculum (including the general aims and objectives of the curriculum) but not only topical outline of contents.</li> </ul>
6	Types of curriculum	<ul style="list-style-type: none"> <li>- Objective-based curriculum</li> <li>- Standard-based curriculum</li> <li>- Distinction between objective-based and standard-based curriculum</li> </ul>	<ul style="list-style-type: none"> <li>- Use discussion method to explain what objective-based curriculum and standard-based curriculum are, and the distinction between the two types of curriculum.</li> </ul>
7	Processes involved in curriculum implementation/delivery	<ul style="list-style-type: none"> <li>- Implementation of objective-based curriculum</li> <li>- Implementation of standard-based curriculum</li> </ul>	<ul style="list-style-type: none"> <li>- Give students project on the processes involved in the implementation of either objective-based or standard-based curriculum, using some specific examples.</li> <li>- Use question and answer method to summarise the processes involved in the implementation of objective-based curriculum and standard-based curriculum.</li> <li>- Discuss the need to take factors such as cultural, linguistic and socio-economic background of students into</li> </ul>

				consideration in implementing the school curriculum.
	8	The basic curriculum materials and how they are used to promote leaning	<ul style="list-style-type: none"> <li>- Definition of basic curriculum materials and examples</li> <li>- How to use the various curriculum materials such as textbooks and teachers guide to promote effective teaching</li> </ul>	<ul style="list-style-type: none"> <li>- Use discussion method to explain what curriculum materials are, giving some examples.</li> <li>- Give students project in mixed-ability groups to explore the use of various curriculum materials to promote effective teaching.</li> <li>- Use discussion method to summarize the main processes involved in the use of each of the basic curriculum materials.</li> </ul>
<b>Course Assessment Components<sup>9</sup>: (Educative assessment of, for and as learning)</b>	<b>Component 1:</b> Formative Assessment (Assignments, Project and Presentations)			
	<p>Summary of Assessment Method:</p> <ol style="list-style-type: none"> <li>1. Class assignment on the meaning of curriculum and distinction between curriculum and syllabus and the types of curriculum. Assesses CLO 1, 2 and 6</li> <li>2. Projects and presentations on the structure and content of the Ghanaian basic school curriculum and processes involved in the implementation objective-based and standard-based curriculum. Students' portfolio on the projects will also be assessed. Assesses CLO 3 and 8</li> </ol> <p>Weighting 30%</p>			
	<b>Component 2:</b> Formative Assessment (Quiz)			
	<p>Summary of Assessment Method: Quiz on objectives of the Ghanaian basic school curriculum, why the study of the basic school curriculum and the basic curriculum materials</p> <p>Assesses CLO 4, 5 and 8</p>			

	Weighting 10%
	<p><b>Component 3:</b> Summative Assessment</p> <p>End-of-Semester examinations to assess CLO 1 - 8.</p> <p>Weighting 60%</p>
<b>Instructional Resources</b>	<ol style="list-style-type: none"> <li>1. Basic school curriculum and other curriculum materials from Ghana and other developed countries</li> <li>2. Computer and accessories</li> <li>3. Projector</li> <li>4. Internet Resources</li> </ol>
<b>Required Text (core)</b>	<p>Cullen, R., Harris, M., &amp; Hill, R. R. (2012). <i>The learner-centred curriculum: Design and implementation</i>. England: John Wiley &amp; sons.</p> <p>Goodson, I. (1987). <i>School subject and curriculum Change 2<sup>nd</sup> edition</i>. New York: the Falmer Press.</p> <p>Grossman, P., &amp; Thompson, C. (2004). <i>Curriculum materials: Scaffolds for new teacher learning?</i> Washington, Centre for the Study of Teaching and Policy, University of Washington.</p> <p>Hargreaves, H. D. (1982). <i>The Challenges for the Comprehensive School, Culture, Curriculum and Community 4<sup>th</sup> Edition</i>. London: Routledge and Kegan Paul.</p> <p>Nacino- Brown, R. et al. (1985). <i>Curriculum and Instruction – An Introduction to methods of teaching</i>. London: Macmillan Publisher Ltd.</p>

## ENVIRONMENTAL AND NATURE STUDY ACTIVITIES IN ECE

### CONTEXT

This programme is developed to train teachers who could teach students to appreciate and solve the emerging environmental and social issues that negatively affect our communities. These issues are grounded within the social, economic and political spheres. Many of these issues are as a result of certain misconception and attitudes that negatively affect our communities. This programme is, therefore, designed to equip teacher-trainees with the appropriate knowledge, skills and values to enable them to assist learners to live well as responsible citizens who have adequate knowledge on the social, economic and political issues in Ghana.

<b>Course Title</b>	<b>ENVIRONMENTAL AND NATURE STUDY ACTIVITIES IN ECE</b>						
<b>Course Code</b>	<b>ECE 203</b>	Course Level	<b>100</b>	Credit Value:	<b>3</b>	Semester	<b>1</b>
<b>Pre-requisite</b>	Student teachers have knowledge in social studies at the senior high school level.						
<b>Course Delivery Modes</b>	<b>Face -to -face<sup>1</sup> X</b>	<b>Student presentation X</b>	<b>Work-Based Learning</b>	<b>Seminars</b>	<b>Independent Study X</b>	<b>E-learning opportunities X</b>	<b>Practicum</b>
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	This course is designed to equip the early childhood professional with activities that are useful in helping young children to appreciate and deal positively with people and things in their environment. The various physical and social environmental characteristics that are of interest to children development, their influences on the child and activities that will be used to generate children’s interest and exploit their curiosity and exploratory attitudes will all be discussed and demonstrated. (NTECF, NTS 2b, 2c, 2e, 2f p. 13).						
<b>Course Learning Outcomes<sup>8</sup>: including</b>	<b>Outcomes:</b> By the end of the course, the student will be able to:			<b>Indicators:</b>			

<b>INDICATORS for each learning outcome</b>	1. Appreciate the importance of the environment, people and places in the lives of children and the need to place them at the centre of child learning NTS 2e, 2f.		1. Appreciate the importance of the environment, people and places in the lives of children.	
	2. Acquire skills in identifying, selecting and organising resources for the active engagement of children with environment NTS 2c, 2e, 2f:		2. Acquire skills in identifying, selecting, and organising resources for active engagement of children with the environment.	
	3. Develop skills in engaging children in environmental explanatory activities as well as representation activities including imagery activities and role plays NTS 2e, 2f		3. Acquire skills necessary for engaging children in environmental explanatory activities and representation of the activities	
	4. Develop knowledge and understanding of the integrated nature of the child's view to improve the cognitive and social competencies of the child. NTS 2e, 2f		4. Explain how the integrated nature of the child's view improves the cognitive and social competencies of the child.	
<b>Course Content</b>	<b>Units</b>	<b>Topics:</b>	<b>Sub-topics (if any):</b>	<b>Teaching and learning activities to achieve learning outcomes</b>
	1.	<b>BUILDING A HEALTHY INDIVIDUAL</b>	<ul style="list-style-type: none"> <li>• The self</li> <li>• The body-Parts and functions</li> <li>• The needs of children</li> <li>• Taking care of the body</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher discusses with students the importance of knowing one's self.</li> <li>• Teacher demonstrates to students the parts of the body</li> </ul>
	2.	<b>THE PHYSICAL ENVIRONMENT (NON-LIVING</b>	<ul style="list-style-type: none"> <li>• Types of plants</li> <li>• Uses of plants</li> <li>• Domestic Animals</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher discusses the types of plants with students</li> </ul> <p>Teacher guides students to brainstorm the uses of</p>



		<b>THINGS)</b>	Wild Animals	plants
	3.	<b>THE PHYSICAL ENVIRONMENT (NON-LIVING THINGS)</b>	<ul style="list-style-type: none"> <li>• Water Soil</li> <li>• Air</li> <li>• Light</li> </ul>	1. Teacher discusses the major components of the physical environment with students
	4.	<b>THE SOCIAL ENVIRONMENT</b>	<ul style="list-style-type: none"> <li>• The Family</li> <li>• The school</li> <li>• The community</li> <li>• Leaders in the community</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher guides students to role-play the responsibilities of the family.</li> <li>• Teacher employs the inquiry method of teaching to help students understand their roles in the community.</li> </ul>
	5.	<b>THE SOCIAL ENVIRONMENT</b>	<ul style="list-style-type: none"> <li>• Good manners (courtesy for boys and girls)</li> <li>• Ghanaian body language techniques</li> <li>• Respect for others</li> <li>• Festivals</li> </ul>	Teacher employs the discussion method of teaching to guide students discuss the tenets of good manners
	6.	<b>OTHER ENVIRONMENTAL ISSUES</b>	<ul style="list-style-type: none"> <li>• Day and night</li> <li>• The Weather</li> <li>• Seasons</li> <li>• Keeping the environment clean</li> </ul>	Teacher employs the inquiry method of teaching to guide students to understand some pertinent environmental issues like day and night, the weather, seasons, keeping the environment clean
<b>Course Assessment Components<sup>9</sup> : (Educative assessment of, for and as learning)</b>	<b>Component 1: Formative assessment</b> Students' learning and progress will be assessed by: Summary of Assessment Method: Quizzes and assignment, presentation, Weighting: 20%			

	Assesses Learning Outcomes: CLO 1, 2 and 3 (units 1 - 3)
<b>Component 2</b>	<p><b>Component 2:</b> Formative assessment</p> <p>Summary of Assessment Method: Quizzes and assignment, presentation</p> <p>Weighting: 20%</p> <p>Assesses Learning Outcomes: CLO 4, 5 and 6 (units 4 - 6)</p>
<b>Component 3</b>	<p><b>Component 3:</b> Summative assessment</p> <p>End-of-semester Examinations</p> <p>Summary of Assessment Method: End of semester examination</p> <p>Weighting: 60%</p> <p>Assesses Learning Outcomes: CLO 1, 2, 3,4, 5 and 6 (units 1 - 6)</p>
<b>Instructional Resources</b>	Textbook, syllabus, teachers' guide, resource person
<b>Required Text (core)</b>	Tamakloe, E. K. (Ed.). (1994). <i>Issues in social studies education</i> . Accra: Black Mask.
<b>Additional Reading List</b>	<p>Erwin, E. J. (1996). <i>Putting children first: Visions for a brighter future for young children and their families</i>. Baltimore, DD: Paul Brookes</p> <p>Walsh, H. M. (1980). <i>Introducing the young child to the social world</i>. New York: Macmillan.</p> <p>Woolfolk, A. E. (1993). <i>Educational psychology</i> (5<sup>th</sup> ed.). Boston: Allyn &amp; Bacon.</p> <p>Kankam, B. (2012). Issues in citizenship education in Ghana: What adolescents need to know? <i>African Journal of Educational Studies</i> 2(2), 1-30.</p> <p>Kankam, B., &amp; Yidana, M. B. (2016). <i>Introduction to social studies</i>. Cape Coast: University Printing Press.</p>

## ARTS AND CREATIVITY IN EARLY GRADE EDUCATION

### CONTEXT

There has been no well-coordinate effort to train teachers for the TVET (Visual Arts) sector. Teacher from the collages of Education were largely 'generalist' teacher with little or no orientation in the TVET (Visual Arts) domain. This course is designed to equip student teachers with specialization in visual arts. This will prepare the students to practice and teach creative art well at early grade level.

<b>Course Title</b>	<b>Arts and creativity in Early Grade Education</b>						
<b>Course Code</b>	EBS 206	<b>Course Level:</b>	<b>200</b>	<b>Credit Value:</b>	<b>3</b>	<b>Semester</b>	<b>One</b>
<b>Pre-requisite</b>	Visual arts, Home economics Basic design technology						
<b>Course Delivering Mode</b>	<b>Face-to-face</b>	<b>Practical Activity</b>	<b>Work-Base Learning</b>	<b>Seminars</b>	<b>Independent Study</b>	<b>e-learning opportunities</b>	<b>Practicum</b>
	X	X	X		X		
<b>Course Description for significant learning (indicate NTS, NTECF, BSC, GLE to be addressed)</b>	<p>This course provides the Student Teacher with the following:</p> <ul style="list-style-type: none"> <li>• The basic principles of child art psychology. It will also challenge Student Teacher to explore the psychology of children's artistic development from 24 months to 12 years.</li> <li>• The concepts of making picture, drawing and colouring, pattern/printmaking and lettering, weaving and stiches, modelling and casting and assemblage and construction It also exposes the Trainee to the use of the basic tools, equipment and materials use in creating art.</li> </ul> <p>The course is designed to be taught as integrated learning area, using a thematic approach to develop the essential skills, knowledge and understanding required for a good teacher as set out in the NTS. With a support of mentor, student teachers collaborate, with 2-4 teachers per a class to plan for and work with a small group or individual pupils, beginning</p>						

	to acquire the ability to consider children’s learning, backgrounds and experience Approaches that would be used in the delivery of this course will promote sustainability education through prudent management and use of teaching learning resources. NTECF, NTS 2b, 2c, 2e, 2f p.13; 3c p.14	
<b>Course Learning Outcome: including INDICATORS for each learning outcome</b>	<b>Outcomes:</b>	<b>Indicators:</b>
	1. Understand why children draw the way they draw. NTS 2c, 2e,	1.1 Discuss the children’s artistic development from 24 months to 12 years.
	2. Analyse and value the artistic development of children. NTS 2c, 2e	2.1 Distinguish the children’s artistic development from 24 months to 12 years.  2.2 Justify the children’s artistic development from 24 months to 12 years.
	3. Understand the concept of picture making & lettering, Weaving & stiches, Modelling & Casting and Assemblage & Construction NTS 2b, 2c, 2e, 2f p13; 3c p.14	3.1 Discuss the concept of picture making & lettering, Weaving & stiches, Modelling & Casting and Assemblage & Construction.
	4. Manipulate the tools, equipment and materials in making picture & lettering, Weaving & stiches, Modelling & Casting and Assemblage & Construction NTS 2b, 2c, 2e, 2f	4.1 Identify appropriate Tools/Materials/ Equipment for teaching the early grade class 4.2 Acquire basic skills in handling tools and materials 4.3 Execute picture & lettering, weaving & stiches, modelling & casting and assemblage & construction task that will be relevant to the teaching of early grade class.
5. Apply the knowledge of teaching early grade children visual arts NTS 2b, 2c, 2e, 2f	5.1 Teach early grade children Visual arts that relate to the environment within which the teacher and pupil live as	

			well as develop a matured and well-behaved child	
			5.2 Demonstrate ability to develop good social values and creativity through Visual Art activities.	
	6. Evaluate the visual art early grade school children do NTS 2b, 2c, 2e, 2f		6.1 Appraise the visual art early grade school children do.	
<b>Course Content</b>	<b>Unit:</b>	<b>Topics:</b>	<b>Sub-topics:</b>	<b>Teaching and learning activities to achieve learning outcomes</b>
	1	Child Art  Picture Making & Lettering  Weaving &	<ul style="list-style-type: none"> <li>• Scribbling (2-4yrs)</li> <li>• Preschematic (4-7yrs)</li> <li>• Schematic (7-9 yrs)</li> <li>• Post-Schematic (9-12)</li> <li>• Importance of child art Education in child development: Intellectual, emotional, perceptual, physical, oral etc.</li> <li>• The role of parents in child art Education</li>   <li>• Drawing and colour work</li> <li>• Pattern making, printmaking and lettering</li>   <li>• Weaving and lacing</li> <li>• Check weaving with 2 strands (over 2 under 2)</li> <li>• Plait/twist with 2 strands</li> </ul>	<p>Discussion on why children draw the way they draw. With the following stages in mind: Scribbling (2-4yrs), Preschematic (4-7yrs), Schematic (7-9 yrs) and Post-Schematic (9-12</p> <p>Group seminar on importance of child development through child Art Education.</p> <p>Discussion on concept and importance of</p>



	5			<p>Discussion on concept and importance of modeling &amp; casting with student teachers</p> <p>Demonstrate the techniques in modeling &amp; casting</p> <p>Discussion on concept and importance of Assemblage &amp; Construction with student teachers</p> <p>Demonstrate the techniques in making Assemblage &amp; Construction</p>
<b>Course Assessment Components (Educative assessment of, for and Learning)</b>	<b>Assessment component I: (formative):</b> Assignment and presentation on child experience in visual arts. Student teacher carries out project work by visiting early grade schools to conduct excises on children’s art. <i>Note:</i> Evidence of the project must be in video together with a write-up. Assess learning Outcomes: CLO units 1			

	<p><b>Weighting:</b></p> <p>Assignment 10%</p> <p>Presentation 10%</p> <p>Project 10%</p> <p>Quizzes 10%</p> <p><b>Assessment component II: (summative):</b></p> <p>Assess learning Outcomes: CLO units 1-5</p> <p><b>Weighting:</b></p> <p>Examination 60%</p>
<b>Instructional Resource</b>	Projector, pencils, eraser, crayons, pastels, charcoal, poster colours, paper, artist brush, tread, needles, fabrics, ect.
<b>Required Text (core)</b>	<p>Appiah E. R. K. (2004). <i>The visual arts, General knowledge and appreciation</i>. Takoradi, Ghana: St. Francis Press.</p> <p>And any suitable General Knowledge in Art textbooks</p>
<b>Additional Readings</b>	<p>Adu-Akwaboa, S. (1989). <i>Art for schools and colleges</i> Kumasi: Samarg Publications.</p> <p>Amenuke, S.K, Adipah, B. K, Baffoe, A., Asare, F.D.K, Ayiku R., &amp; Dogbe B.K. (1991). <i>General knowledge in art for senior secondary schools</i>. London: Evans Brothers.</p> <p>Amenuke, S.K. (1997). <i>Notes on art education and vocational Skills</i>. Kumasi, KNUST: Design Press.</p> <p>Beloeil, G., &amp; Riabovitchev, A., (2013). <i>Art fundamentals: Colour, Light, composition, anatomy, perspective and depth</i>.</p>



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Curriculum Research and Development Division of Ghana Education Service (2010). *Teaching syllabus for primary 1 - 6 (Creative arts)*. Accra, Ghana: Ministry of Education.

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## HEALTH AND PHYSICAL FITNESS

### CONTEXT

Physical education helps students to develop the skills, knowledge, and competencies to live healthy and physically active lives at school and for the rest of their life. They learn ‘in, through, and about’ movement, gaining an understanding that movement is integral to human expression and can contribute to people’s pleasure and enhance their lives. This course therefore seeks to empower trainees to participate in physical activity and understand how this influence their own well-being and that of their prospective students. By demonstrating the benefits of an active life style, they encourage others to participate in sport, dance, exercise, recreation, and adventure pursuits. Physical education engages and energises students. It provides authentic contexts in which to learn. In this course students are challenged to develop their physical, professional and interpersonal skills. This course will enable students to experience movement and understand the role that it plays in their lives and that of their prospective students. Students can contribute to the development of physical education programmes and choose their own level of participation. The resulting learning environment challenges their thinking and helps to promote an interest in lifelong leisure and recreational pursuits.

<b>Course Title</b>	<b>Health and Physical Fitness</b>						
<b>Course Code</b>	<b>EBS 218</b>	<b>Course Level:</b>	<b>200</b>	<b>Credit Value:</b>	<b>3</b>	<b>Semester</b>	<b>1</b>
<b>Pre-requisite</b>	<b>Student teachers must have knowledge in</b> Health and Physical fitness activities in the senior high school.						
<b>Course Delivery Modes</b>	<b>Face -to -face</b> (√)	<b>Practical Activity</b> (√)	<b>Work-Based Learning</b> (√)	<b>Seminars</b> (√)	<b>Independent Study</b> (√)	<b>e-learning opportunities</b> (√)	<b>Practicum</b> (√)
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	This course equips students with competencies to enable them to choose and pursue active and healthy lifestyles. It involves the concept of wellness and physical fitness. Emphasis is placed on knowledge and skill acquisition in health-related fitness and the various factors that affect wellness and fitness. The course includes practical components related to physical activity, health examination and personal and group exercise planning. Practical activities include jogging, power walking, aerobics, skipping, weight training, etc. Drug use and dietary practices are also examined. In order to address gender stereotypes, the teaching and learning approaches should prepare teacher trainees to adopt pedagogical practices that promote the learning progress of both boys and girls. <b>NTECF; NTS 1a pg 12, 2c,d,e,f pg 13, 3b,c,e,g,i,j,k,l,m pg 14.</b>						

<b>Course Learning Outcomes: including INDICATORS for each learning outcome</b>	<b>On successful completion of the course, student teachers will be able to:</b>	<b>Indicators</b>
	CLO 1. Demonstrate Knowledge and understanding of how to measure and monitor changes in the human body as a result of physical activity. (NTS 2c, pg13, 3d, pg14)	1.1 Explain the phrase ‘body adaptation to exercise’. 1.2 Describe the physical changes that may occur as a result of physical activities. 1.3 Elucidate how to measure these physical changes that may occur due to the physical activity.
	CLO 2. Demonstrate Knowledge and understanding of how to articulate the benefits of regular physical activity. (NTS 2c,e,f, pg13, 3i, pg14)	2.1 State the effects of acute and chronic bouts of physical activity. 2.2 Recommend and explain the benefits or otherwise of engaging in these bouts.
	CLO 3. Demonstrate Knowledge and understanding of how to differentiate between health related and motor skill related physical fitness. (NTS 2c, pg13, 3b, pg14)	3.1 Mention and describe the various types of physical fitness activities. 3.2 Categorize the activities into health related and motor skill physical fitness related.
	CLO 4. Demonstrate Knowledge and understanding of how to develop the attitude of keeping fit and living healthy. (NTS 2a,c, pg13, 3b, pg14)	4.1 Develop interesting physical activities that are addictive in nature. 4.2 Briefly describe eating habits for wellbeing. 4.3 Demonstrate the effect of bad eating habits.
	CLO 5. Demonstrate Knowledge and understanding of how to develop fitness programmes that meet the needs of individuals and special groups. (NTS 2a,c, pg13, 3b, pg14)	Develop physical activity schedules for: 5.1 beginners 5.2 intermediates 5.3 experts 5.4 persons with special needs
	CLO 6. Demonstrate Knowledge and understanding of practical activities that enhance physical fitness. (NTS 2a,c, pg13, 3b, pg14)	6.1 Mention and explain physical activities that positively impacts fitness. 6.2 Demonstrate the various intensities needed to achieve the positive impact.
	CLO 7. Demonstrate Knowledge and understanding of the role of lifestyle practices in health and wellness. (NTS	7.1 Identify the various lifestyles that affects the health and wellness of individuals.

	2a,c, pg13, 3b, pg14)		7.2 Briefly describe alternatives that has a positive influence.	
<b>Course Content: Physical Fitness and Wellness</b>	<b>Units</b>	<b>Topics:</b>	<b>Sub-topics (if any):</b>	<b>Teaching and learning activities to achieve learning outcomes</b>
	1	Physical Fitness and Wellness	<ul style="list-style-type: none"> <li>• Definition of Physical Fitness and Wellness.</li> <li>• Benefits of being fit and well (social, economic, emotional and personal)</li> </ul>	Discussion/Brainstorming. Encourage females to lead the discussion to address gender stereotype.
	2	Physical Fitness	<ul style="list-style-type: none"> <li>• Types – Health-related and Motor skill-related</li> <li>• Components – definition and how to enhance.</li> </ul>	Discussion/Demonstration
	3	Components of Wellness	<ul style="list-style-type: none"> <li>• Physical, Social, Emotional, Spiritual, Environmental, Occupational, Intellectual</li> </ul>	Discussion encourage active participation of both males and females
	4	Knowing your Body	<ul style="list-style-type: none"> <li>• Taking of heart rate, blood pressure, BMI and body composition</li> </ul>	Practical measurements
	5	Nutrition and Wellness	<ul style="list-style-type: none"> <li>• Relationship between nutrition and diet</li> <li>• The role of nutrition and health</li> <li>• Dietary practices and their effects on wellness</li> </ul>	Discussion encourage active participation of both male and females.
6	Lifestyle and wellness	<ul style="list-style-type: none"> <li>• Role of lifestyle practices in health – physical activity, alcohol, tobacco and other drugs, rest, sleep, recreation, etc.</li> </ul>	Discussion/Debate/Mock trial/Sharing personal experiences. Encourage females to lead groups	

	7	Fitness Programme	<ul style="list-style-type: none"> <li>• Procedure for beginning a fitness programme</li> <li>• Basic elements of training activities (warm up, workout, cool down)</li> </ul>	<p>Discussion Problem solving Project encourage females to lead some of the project teams to deal with gender stereotypes.</p>
	8	Physical Fitness and Wellness Practical Activities	<ul style="list-style-type: none"> <li>• Promotion of physical fitness and wellness(education and exercise)</li> <li>• Procedures for teaching basic movement activities(warm up sessions, activity sessions, etc)</li> <li>• Practical(motor) activities for children (Power walking and jogging, aerobic dance, etc)</li> </ul>	<p>Practical activities carried out throughout the semester</p>
Course Assessment Components: (Educative assessment of, for and as learning)	<b>COMPONENTS 1 &amp; 2 FORMATIVE ASSESSMENTS - 40% AND COMPONENT 3, SUMMATIVE - 60%</b>			
	Component 1 Formative assessment Quizzes and Exercises 20% Assesses: CLO 1,2,3,4,5,6 and 7 (NTS 1b, 2c, d, e, 3 a, c, h; NTECF 16,20, 45 )			
	Component 2 Practical observation, group and individual presentations and analysis of various activities. 20% Assesses : CLO 1, 2, 3, 4, 5, 6 and 7 (NTS 1b, 2c, d, e, 3 a, c, h; NTECF 16, 20 45 )			
	Component 3 Summative assessment ( End of semester examination on units 1 to 8 ) 60%			
Instructional	1. Projector and screen			

Resources	<p>2. Computer (Laptop) for playing back</p> <p>3. Cones, markers, stop watches, whistles, tape measures, P.A. System, Score sheets, memo pads etc.</p>
Required Text (core)	<p>Ammah, J. (2004). <i>Physical education for the basic school teacher</i>. Winneba: The Institute for Educational Development and Extension.</p> <p>Karbo, J., Ogah, J. K., &amp; Domfeh, C. (2005). <i>An introduction to physical education</i> (Centre for Continuing Education Module, University of Cape Coast). Cape Coast: University Printing Press.</p>
Additional Reading List	<p>Arends, R. (1995). <i>Learning to teach</i>. New York, NY: McGraw Hill, Inc.</p> <p>Attah, K. K., &amp; Awuni, W. (2001). <i>Teaching physical education in basic schools</i>. Accra: Ministry of Education.</p> <p>Bucher, C. A. (1992). <i>Foundations of physical education</i>. New York, NY: C.V. Mosby.</p> <p>Domfeh, C., Attah, K. K., &amp; Ayensu, E. K. (2006). <i>Teaching physical education: A guide to teachers</i>. Kumasi: Learners Publishers.</p> <p>Lumpkin, A. (1998). <i>Physical education and sport</i> (4<sup>th</sup> ed.). New York, NY: WCB/McGraw-Hill.</p> <p>Ogah, J. K. (2010). Developing and promoting active lifestyles for healthy living and national development. <i>West Africa Journal of Physical &amp; Health Education</i>, 14, 47-70.</p> <p>Ogah, J. K. (2009). <i>A basketful of health and safety for the early childhood environment</i>. Paper presented at the National Conference on Early Childhood Education. University of Cape Coast. December 16-17, 2009.</p> <p>Sue, R. W. (1994), <i>Essentials of nutrition and diet therapy</i> (6<sup>th</sup> ed.). St Louis: The C.V. Mosby Company.</p> <p>Wuest, D. A., &amp; Bucher, C. A. (2001). <i>Foundations for physical education and sport</i>. Boston: WCB/McGraw Hill.</p>

## GHANAIAN LANGUAGE FOR EARLY CHILDHOOD EDUCATION TEACHERS

### CONTEXT

Some learners enter the ECE programme with limited content knowledge and literature of the Ghanaian language. Therefore this course exposes students to the basic content knowledge regarding phonemic awareness, phonics, grammar as well as literature to prepare them for basic content instruction.

Course Title	<b>Ghanaian Language for Early Childhood Education Teachers</b>						
Course Code	EBS 209	Course Level 200			Credit value 3	Semester: 1	
Pre-requisite	N/A						
Course Delivery Modes	Face-to-face √	Practical Activity √	Work-based learning √	Seminars √	Independent Study √	e-learning opportunities √	Practicum
Course Description	<p>This is a language and literature content course, designed to prepare students who are required to teach the core content of the Ghanaian Language in lower Primary school. The course covers aspects of Phonology, Structure (Syntax/ Grammar), Oral and Written literature, Customs and institution, and Usage of the language. Student will be given projects in the form of essay writing and some aspects of Oral literature in order to assist them write a simple childrens' story book at the end of the semester.</p> <p>The course is aimed at helping students to acquire a sound base in the content of the Ghanaian language to enable them teach the subject early childhood learners. The course also looks at the genres of childrens' literature with emphasis on fictions, non-fictions, concept books, as well as rhymes and poetry. The course is designed to meet the following NTS and NTECF expectations and requirements. NTS 1c, 1e, 1g; NTS 2b, 2c, 2d; NTS 3a, 3b, 3c, 3e, 3f,3h; NTECF bullets 1, 2, 3,4: p. 23)</p>						

<p>Course learning outcome including INDICATORS for each learning outcome</p>	<p>On successful completion of the course the student will be able to:</p>	
	<p>Outcomes</p> <p><b>CLO 1</b> Have a clear understanding of the sound systems of a given Ghanaian language, classify the sounds into consonants and vowels as well as demonstrate the knowledge of the basic word formation processes (NTS 1c, 1g; NTS 2b, 2c, 2d; NTS 3a, 3b, 3c, 3e, NTECF bullets 1, 2, 3,4: p. 23)</p> <p><b>CLO 2</b> Demonstrate knowledge and understanding of the word classes/lexical categories of the given Ghanaian language and the basic sentence structure (NTS 2b, 2c, 2d; NTS 3a, 3b, 3c, 3e, NTECF bullets 1, 2, 3: p. 23)</p> <p><b>CLO 3</b> Demonstrate knowledge and understanding of the basic customs and institution</p>	<p>Indicators</p> <ol style="list-style-type: none"> <li>1. Explain phonology, phonemic awareness and phonics</li> <li>2. Classify the sounds of the Ghanaian language under study into consonants and vowels</li> <li>3. Uses phoneme manipulation to form new words</li> <li>4. Identify and use rhymes and tongues twister in learning the pronunciation of difficult sounds</li> <li>5. Identify and use prosodic features in the given language to form and pronounce words</li> <li>6. Identify and explain the word classes of the Ghanaian language being studied</li> <li>7. Discuss the basic sentence structure in the Ghanaian language being studied</li> <li>8. Identify and discuss the basic customs and institutions in the Ghanaian</li> </ol>



	relevant for ECE learners (NTS 2c, 2e:13), (NTS:13) <b>CLO 4</b> Appreciate both oral and written children's literature as well as the genres of children's literature (NTS 1c,e:12), (NTS 3e,3f,3h:14),	language being studied		
		9. Explain children's literature		
		10. Identify and discuss the various forms of children's literature as well as genres		
Course content	Units:	Topics:	Sub-topics:	Suggested Teaching Learning Activities
	1	Definition of Terms  Sound Systems	<ol style="list-style-type: none"> <li>1. What is: <ol style="list-style-type: none"> <li>i. Phonology</li> <li>ii. Phonemic Awareness</li> <li>iii. Phonics</li> </ol> </li> <li>2. Classifying sounds into consonants and vowels</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss the meaning of the key Terms: <ol style="list-style-type: none"> <li>i. Phonology</li> <li>ii. Phonemic Awareness</li> <li>iii. Phonics</li> </ol> </li> <li>2. Discuss the sound system and classify them into consonants and vowels</li> <li>3. Use different manipulation to form words</li> <li>4. Identify and use assonance, alliteration and tongue twisters to learn difficult sounds</li> <li>5. Explain and use prosodic features to determine meanings of words</li> <li>6. Identity and explain major word classes with examples</li> <li>7. Identity and explain minor word classes with examples</li> </ol>

	2	Major Word Classes		8. Explain and discuss the following customs : Greetings Naming Festivals Folktales
	3	Minor Word Classes		9. Discuss the meaning of children's literature 10. Identify and describe types of children's literature
	4	Custom and Institutions	Major Word Classes: Noun Verbs Adjectives Adverbs etc.	11. Discuss the Characteristics of children's literature

	5	Children's Literature	<p>Minor Word Classes</p> <p>Conjunctions</p> <p>Interjections etc</p> <p>Some Ghanaian Customs and Institutions relevant for children:</p> <p>Greetings</p> <p>Naming</p> <p>Festivals</p> <p>Folktales</p> <p>Meaning and types of Children's Literature</p>	
Course Assessment Component		<b>Component 1: Formative assessment (40%)</b>		

	<p>Summary of assessment methods:</p> <p>Individual assignments- response to issues identified in the texts (10%);</p> <p>Class participation (10%);</p> <p>Group presentation- text 3 (10%)</p> <p>Quizzes – short answer questions (10%)</p> <p>Assessing CLO 1, 2, 3 and 4.</p> <p><b>Component 2: Summative assessment: (60%)</b></p> <p>End of semester examination on units 1 – 7 to develop core skills such as knowledge application and personal development. The examination will adopt varied approaches; from short answer questions to essay questions.</p> <p>Assessing CLO 1, 2, 3 and 4.</p>
Instructional Resources	<ol style="list-style-type: none"> <li>1. Language Laboratory</li> <li>2. Sound recorder</li> <li>3. LCD projector</li> </ol>
Required Text for all Ghanaian Languages	<p>Agyekum, K (2013) <i>Introduction to Literature</i>, Accra: Adwinsa Publishers</p> <p>Peck, J. &amp; Coyle, M. (1993). <i>How to study Literature</i>. London: Macmillan Press.</p> <p>For Akan:</p> <p>Afoakwa, K. A. (2001). <i>Twi Kasa ho Adesua Bi</i>. Kumasi: ABOYAP Press.</p> <p>Aggrey, J. E. K. (1977). <i>Ebisaa na Abrɔme</i>. Accra: Bureau of Ghana Languages.</p>

	<p>Ampah, E., Boesiwa, K., &amp; Bronteng, E. (2008). <i>Mfantse Kasasua and Amambra</i>, JHS 1-3  Accra: Masterman Publications Ltd.</p> <p>Crayner, J. B. (1975). <i>Yeehyiahya oo!</i> Accra: Bureau of Ghana Languages.</p> <p>Nketsia, J. H. K. (1975). <i>Awonsɛm</i>. Ghana: Afram Publications.</p> <p>Taylor Kweku (1970). <i>Twi Twi Mbɛɛ</i>. Accra: Bureau of Ghana Languages.</p>
Additional Reading List	TBA

## FIELD EXPERIENCE IN SCHOOLS III

### CONTEXT

During this semester, trainees will be taking a course in General Curriculum Studies. Therefore, for proper alignment of the College-based courses and their Field Experience, Supported teaching in schools in the second year needs to consider issues related to the curriculum of the Lower Primary Level.

<b>Course Title</b>	<b>Field Experience in Schools III</b>						
<b>Course Code: EBS 291</b>	<b>Course Level: 200</b>			<b>Credit Value: 3</b>		<b>Semester: 1</b>	
<b>Pre-requisite</b>	EBS 191 and EBS 192						
<b>Course Delivery</b>	Face-to-Face X	Practical Activity X	Work-based Learning X	Seminars X	Independent Study X	e-learning Opportunities X	Practicum X
<b>Course Description for significant learning (indicate NTS, NTECF, BSCGLE to be assessed)</b>	As the courses taken at the college level continue to expose students to critical aspects of what teachers need to know and be able to do concerning enactment of the curriculum. The school-based component of their training this year is aimed at giving trainees opportunities to continue to observe how KG teachers work with the curriculum. In addition, trainees will work with their mentors in deciding how to create a good and effective classroom environment and reflect and document their experience. Trainees should be encouraged to observe inherent gender stereotypes in some of the teaching learning resources and provide reflections on how to select and use basic curriculum materials in ways that will challenge gender stereotypes among pupils.. <b>NTS 1 a, d, e, f &amp;g. NTECF: Pillar 4.</b>						

	<b>OUTCOMES</b>	<b>INDICATORS</b>
<b>Course Learning Outcomes: including INDICATORS for each learning outcome</b>	By the end of semester, trainees will be able to:	
	CLO 1: Demonstrate the ability to develop and use a field experience activity log. <b>NTS 1 a, d, e, f &amp;g. NTECF: Pillar 4.</b>	1.1: Submit a detailed schedule of their school visits. 1.2: Produce, as part of the portfolio, a well-organized field experience log that shows activities undertaken in the school and the support received from their mentors. This should also include reflections on their experience.
	CLO 2: Exhibit the ability to interact with students and teachers, including administrators of the school they are visiting. <b>NTS 1 a, d, e, f &amp;g. NTECF: Pillar 4.</b>	2.1: Produce a handwritten journal that shows a record of dates, times and descriptions of their experiences with the different categories of people. 2.2: Describe aspects of the school culture such as the language of instruction in the classes visited
	CLO 3: Use a simple observation handout to observe lessons. <b>NTS 1 a, d, e, f &amp;g. NTECF: Pillar 4.</b>	3.1: Submit a record of lessons observed using a simple observation guide. 3.2: Describe the physical environment of the class(es) visited such as the quality of posters, pictures or bulletin boards and what they depict. 3.3: Submit a summary description of the lessons observed highlighting how the teacher communicated with the class, strategies the teacher used to assess student understanding and resources, books, or materials used

			by the teacher. 3.3: Detail any special arrangements made by the teacher to support students with physical or learning challenges.	
	CLO 4: Explain the key features of the school curriculum. <b>NTS 1 a, d, e, f &amp;g. NTECF: Pillar 4.</b>		4.1: Submit a brief analysis of the Lower Primary curriculum focusing on the general objectives, mode of assessment, sequencing of the curriculum and curriculum alignment of the various subject 4.2: Describe the level of inclusiveness in the Lower Primary curriculum	
<b>Course Content</b>	<b>Units</b>	<b>Topics</b>	<b>Subtopics</b>	<b>Teaching &amp; Learning Activities</b>
	1	College level Orientation	Orientation by College tutor on the purpose of and activities to be undertaken during this semester's STS	Use of PowerPoint and other visual representations to give students orientations on the activities to be undertaken during their school visits
	2	Lower Primary Curriculum	Essential features of the Lower Primary Curriculum	2.1: Trainees work with their mentors to discuss and document the essential features of the Lower Primary curriculum including, 2.1.1: the general objectives of the curriculum 2.1.2: the mode of assessment prescribed 2.1.3: how the curriculum of one level progresses into the other



				<p>2.2: Trainees placed in a particular school work in groups with their mentors to look closely at how the content of the various Lower Primary subjects are aligned with each other</p> <p>2.3: Evaluate the level of inclusiveness of the Lower Primary curriculum</p>
	3	Observation of lessons	Lesson observation using a simple observation guide.	<p>3.1 Observe the physical environment of the class(es) visited and record the quality of posters, pictures or bulletin boards and what they depict.</p> <p>3.2: Observe lessons taught by the class teacher taking note of strategies/pedagogies used in teaching and reflect on them.</p> <p>3.3: Observe the nature of student-teacher and student-student interactions and reflect on it.</p> <p>3.4: Observe and assess student response patterns reflect on it</p> <p>3.5: Observe how the mentor reacts to responses from students of the opposite gender</p> <p>3.6: Observe strategies the mentor uses to assess student understanding and resources, books,</p>

				<p>or materials used by the teacher reflect on them.</p> <p>3.7: Observe and record any special arrangements made by the mentor to support students with physical or learning challenges.</p> <p>3.8: Observe both girls and boys responses to teaching and learning in classroom enquiries</p> <p>3.9: Audit, review and evaluate the learning resources in the classroom in terms of gender in textbooks, for example.</p>
	4	Using models as thinking tools	Effective us of models in the classroom	<p>4.1: Survey manipulatives available for use in the classroom</p> <p>4.2: Observe and document how the mentor uses manipulative in their lessons</p> <p>4.2: Assessing other manipulatives on the web, sharing and discussing their use with mentors and documenting activities developed from these with the mentor</p>
	5	Using cooperative learning groups		<p>5.1: Discuss and observe how to compose cooperative learning groups</p> <p>5.2: Observe small groups at work</p> <p>5.3: Develop guidelines for evaluating group</p>

				work with mentors 5.4: Observe and evaluate group work using guidelines developed with mentors
	6	Finalization of trainees' portfolios		One week layover for trainees to finalize their portfolios for submission
	7	Trainee presentations		Provide opportunities for trainees to make presentations of their experiences. This should take the form of poster presentations
<b>Course Assessment Components: (Educative assessment of, for and as learning)</b>	<p><b>Component 1: Portfolio Assessment</b> (CLO 1 to 4)</p> <p>Trainees will be expected to develop portfolios detailing their interactions with students, their mentors and other teachers, the head of school, trainees personal experiences, descriptions of lessons they observed, and any activities undertaken in the school (see CLO 1 to 4). These portfolios will be assessed using rubrics developed to assess the quality of presentation and detail provided. The portfolio assessment will constitute 60% of trainee's score</p> <p><b>Component 2: Evaluation by mentors</b> (CLO 1 to 4)</p> <p>Trainees will be assigned who will work with them and guide them through out the period. These mentors will assess their mentees punctuality, regularity and attitudes to work, professionalism (including how they behave towards students with physical or learning challenges and interact with teachers and students) and willingness to support extra curricular activities of the school. The mentor's evaluation will constitute 40% of trainee's score</p>			
<b>Instructional Resources</b>	Projectors, Laptop Computers, Video Recordings and other Multimedia Resources, Files, Field Notebooks			

<p><b>Required Text (Core)</b></p>	<p>Manion L, Keith, R. B., Morrison, K., &amp; Cohen, L. (2003). A guide to teaching practice. Available at <a href="http://www.books.google.com/books">http://www books.google.com/books</a> .</p> <p>Perry R 2004. Teaching practice for early childhood. A guide for students. Available at <a href="http://www.Routledge.com/catalogues/0418114838.pdf">http://www Routledge.com catalogues./0418114838.pdf</a>.</p>
<p><b>Additional Reading List</b></p>	<p>Kiggundu, E., &amp; Nayimuli, S. 2009 Teaching practice: a make or break phase for student teachers <i>South African Journal of Education</i>, (29), 345-358.</p> <p>Menter I 1989. Teaching Stasis: Racism, sexism and school experience in initial teacher education. <i>British Journal of Sociology of Education</i>, 10:459-473.</p>

**BACHELOR OF EDUCATION (PRIMARY EDUCATION) PROGRAMME**

**YEAR TWO**

**ENGLISH LANGUAGE STUDIES II**

**SEMESTER ONE**

**CONTEXT**

The goal of the course is to sustain an unwavering focus on developing knowledge, skills, pedagogy and essential understanding required of a good English teacher to teach English Language and Literature in English from Early Childhood through to the Junior High School in Ghana. The course is to equip the student-teacher with an understanding of contemporary theories, concepts and practices in English Studies and teaching in enhancing literacy. The English courses introduce the student-teacher to the basics of language acquisition skills as well development strategies. The skills: listening, speaking, reading and writing, are given premium throughout the student-teacher's training. These skills are crucial for their academic endeavours, which they will further impart to the Ghanaian child. Though the current teacher training curriculum addresses it, intensifying it comes with numerous advantages to all stakeholders of Ghanaian education. The courses are designed in a manner that the sub-disciplines complement one another. There are ICT components imbedded in the teaching-learning activities to facilitate interactive and learner-focused approach. There is a symbiotic approach in the training of the teachers; as the trainees acquire these skills for personal use and also impart to the students. The detailed course descriptions and objectives pay attention to the individual courses and attempt to draw synergy from "The National Teacher Education Curriculum Framework" and "National Teachers' Standards for Ghana Guidelines". The assessment portfolios would pay heed to Bloom's Taxonomy of higher level questioning.

<b>Course Title</b>	<b>English Language Studies II</b>						
<b>Course Code</b>	<b>EBS 207</b>	<b>Course Level:</b>	<b>200</b>	<b>Credit Value:</b>	<b>3</b>	<b>Semester</b>	<b>1</b>
<b>Pre-requisite</b>	Students have been introduced to aspects of the course in EBS 135. This course builds on the knowledge acquired in EBS 135.						

Course Delivery Modes	Face -to –face [X]	Practical Activity <sup>2</sup>	Work-Based Learning <sup>3</sup>	Seminars <sup>4</sup>	Independent Study [X]	e-learning opportunities [X]	Practicum <sup>7</sup>
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	<p>This course offers further studies in grammar, comprehension and writing. The grammar topics will lay emphasis on subordination and co-ordination; types of sentences according to structure and function, and then direct and indirect speeches. Students will again be required to develop the skill of comprehending texts, using the context within which the text has been presented and also their own experiences. They will also be expected to read argumentative texts and extract meaning from them. Furthermore, they will be required to use their knowledge gained in these areas in communicating orally and in writing. The writing aspect of this course will focus on formal letters, argumentative essays and debates. This course will thus help students to use both their knowledge in grammar and writing, in presenting their assignments orally and in writing. This course will be delivered through whole class discussions, small group discussions, presentations as well as individual work. Student-teachers will be assessed through quizzes, short term project writing, assignments and examinations.</p> <p><b>NTS and NTECF requirements: NTS 1b, e, g,2b, c, f,3g, h, i, k</b></p>						
<b>Course Learning Outcomes <sup>8</sup>: including INDICATORS for each learning outcome</b>	<b>Outcomes</b> By the end of the course, the student will be able to:			<b>Indicators</b>			
	2. join clauses using appropriate coordinating, correlative and subordinating conjunctions. (NTS 2c, 3h)			1.1. discuss what clauses are as a way of refreshing memory of the previous course. 1.2. Discuss and identify correlative, subordinating and coordinating conjunctions, linking knowledge gathered from the previous course. 1.3. Working in groups to discuss the kinds of sentences and the conjunction that could be used to join them.			
	3. identify the various sentence structures and use them in their writing. (NTS 1b,2c, h)			2.1. lead students to discuss the different sentence structures			
	4. answer questions based on expository and argumentative passages. (NTS 1b, 2c, h)			3.1 discuss the various sentence patterns 3.2 identify the patterns of given sentences. 3.3 write sentences to fit given patterns			

	5. generate sentences based on the basic sentence patterns. (NTS 1b, 2c, h)	4.1 discuss what formal letters are and their features 4.2 work in groups to generate ideas on a given formal letter. 4.3 work in groups to present a formal letter, incorporating all features of a formal letter. 4.4 discuss each group's letter in class to make it better.		
	6. write formal letters to appropriate offices and institutions. (NTS 1b, 2c, h,)	5.1 discuss various kinds of passages (expository and argumentative) and answer questions on them, using skills learned in the previous course on comprehending texts.		
<b>Course Content</b>	<b>Units</b>	<b>Topics:</b>	<b>Sub-topics (if any):</b>	<b>Teaching and learning activities to achieve learning outcomes</b>
	1	1.Co-ordination and subordination	1. Coordination a. Joining clauses of equal rank b. Use of coordinating conjunctions	Discuss what clauses are as a way of refreshing memory of the previous course. Discuss the conjunction in joining two simple sentences. Then introduce the concept of coordination.
	2.	2. Sentence	2. Subordination a. Joining clauses of unequal rank a. Use of coordinating conjunctions	Discuss and identify correlative, subordinating and coordinating conjunctions, linking knowledge gathered from the previous course.  Discuss the subordinating conjunctions Work in groups to discuss the kinds of sentences and the conjunction that could be used to join them.
	3.	3. Active and Passive voices	3.Types of subordinate clauses: i. nominal ii. relative/adjectival iii. adverbial iv. reason v. manner vi. purpose vii. place viii.time	Lead students to discuss the different sentence structures  Discuss the various sentence patterns Identify the patterns of given sentences. In groups, let students write sentences to fit the given patterns
	4.	4. Direct and Indirect		With illustrations, discuss the structure of the active voice. Discuss the structure of the passive voice

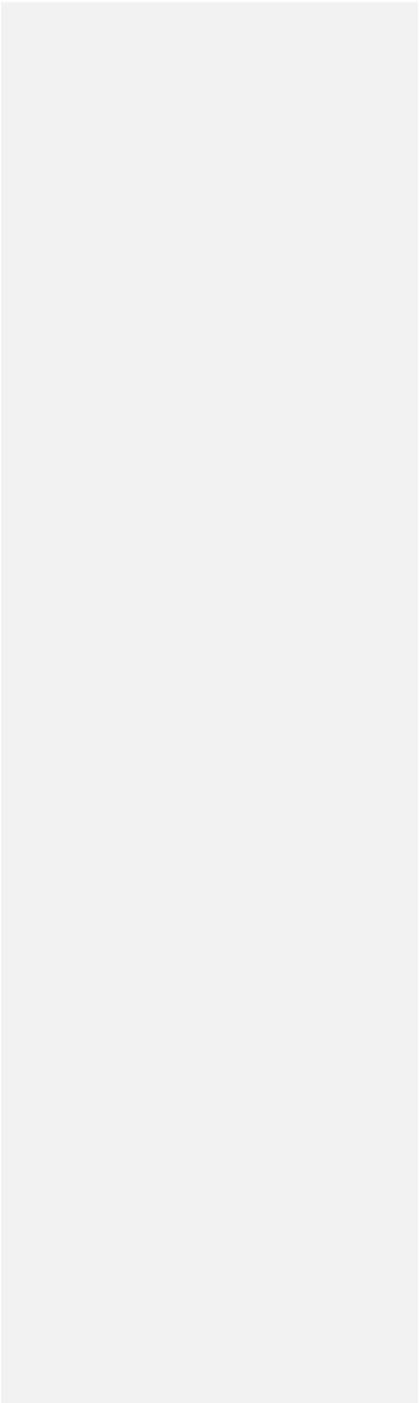
		(Reported) speech)	ix. concession, etc.	Discuss the uses of the voices
			1.Mood a. declarative b. imperative c. exclamatory d. interrogative	Guide students to make direct statements. Discuss the features of direct statements. Guide them to convert the direct statements to indirect. Discuss the salient features of indirect statements and others.
			2. Structure a. simple b. compound c. complex d. compound complex	Let students brainstorm on the word. Provide illustrative sentences to guide students in discussing the concepts Write sentences with errors. Let students discuss the errors. Introduce and discuss the concepts. With word game, guide students in spelling
5.			3.Basic Sentence Patterns a. SV b. SVA	Discuss what formal letters are and their features
6.	5.Error Analysis		c. SVC d. SVO e. ASVO f. SVOO, etc.	Guide students to work in groups to generate ideas on a given formal letter and present a formal letter, incorporating all features of a formal letter. Discuss each group's letter in class to make it better. Provide scenarios for students to describe the kind of argumentation. Discuss argumentation and types. Guide students to discuss the features of debate
	7. Writing		1.The Active Voice - features: Subject, followed by verb and object, etc. 2.The Passive Voice – features: a. changes that take place in the verb, position of subject and object, etc.	Discuss various kinds of passages (expository and argumentative) and answer questions on them, using skills learned in the previous course on comprehending texts.
7	7.Argumentative Essay/Debate		3. Uses of the active and passive voice	
			1. Features of Direct Speech –	



	8	8.Comprehension	<p>use of quotation marks, etc.  2. Features of Indirect (Reported) speech</p> <p>1.Ambiguity  2.Dangling and Misplaced modifiers</p> <p>3. Concord errors  - Error of preposition</p> <p>4. Spelling errors, etc.</p> <p>1.Formal Letter Writing  a. Formal letters  i. letters to the press,  ii. for employment,  iii. education offices</p> <p>2.Features  a. address, date, salutation, heading,  b. Body – introduction, development and conclusion  (Attention should be paid to letters for study leave, promotion/upgrading, transfer, maternity leave, etc.)</p> <p>1.Types of Argumentative Essay  2. Features of a Debate  a. Introduction  i. vocative  ii. declaring purpose and motion</p>	
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			<ul style="list-style-type: none"> <li>iii. debating the points raised by the other side</li> <li>iv. presentation of points raised by the other side</li> <li>v. raising points for your side</li> <li>vi. support points with facts &amp; figures</li> <li>vii.conclusion</li> </ul> <p style="text-align: center;">Comprehension based on expository and argumentative texts</p>	
<b>Course Assessment Components<sup>9</sup> : (Educative assessment of, for and as learning)</b>	Component 1: Formative assessment (40%) Summary of assessment methods: Group project on the types of essay (10%); Individual assignments- coordination and subordination (10%); and a quiz – sentence, error analysis and comprehension (20%) Assessing Learning Outcomes: 1, 2, 3, 4 and 5.			
	Component 2: Summative assessment: (60%) End of semester examination on units 1 – 8 to develop core skills such as knowledge application, personal development. The examination will adopt varied approaches; from short answer questions to essay questions. Assessing Learning Outcomes: 1, 2, 3, 4 and 5.			
<b>Instructional Resources</b>	Projector and computer, mobile phones, sampled expository and argumentative passages			
<b>Required Text (core)</b>	Randolph, Greenbaum, Sidney et al. (1985). <i>A comprehensive grammar of English language</i> . Essex: Longman.			
<b>Additional Reading List<sup>10</sup></b>	<p>Cobuild, (1990). <i>English grammar</i>. London: Harper Collins.</p> <p>Cobuild, (1992). <i>English usage</i>. London: Harper Collins.</p> <p>Clouse, B. F. (1997). <i>Transitions: From reading to writing</i>. Boston: McGraw-Hills.</p> <p>Crystal, D. (1998). <i>The Cambridge encyclopaedia of language</i>. Cambridge: CUP.</p> <p>Johnson, K. (1982). <i>Communicate in writing</i>. Essex: Longman.</p> <p>Leech, G. (1989). <i>English grammar and usage</i>. London: Edward Arnold.</p> <p>Ploeger, K.M. (1999). <i>Simplified writing skills</i>. Illinois: NTC Publishing Group. Press.</p>			

	Rozakis, L. E. (2003). <i>Grammar and style</i> . Indiana: Alpha Books.
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## INTRODUCTION TO SEMANTICS

<b>Course Title</b>	<b>INTRODUCTION TO SEMANTICS</b>						
<b>Course Code</b>	<b>EBS 280</b>	<b>Course Level:</b>	<b>200</b>	<b>Credit Value:</b>	<b>3</b>	<b>Semester</b>	<b>1</b>
<b>Pre-requisite</b>	Students have basics in the concepts from senior high school.						
<b>Course Delivery Modes</b>	<b>Face -to –face X</b>	<b>Practical Activity X</b>	<b>Work-Based Learning<sup>3</sup></b>	<b>Seminars<sup>4</sup></b>	<b>Independent Study X</b>	<b>e-learning opportunities X</b>	<b>Practicum<sup>7</sup></b>
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	<p>This course studies some of the areas covered by linguists in their attempts to understand the meaning of “meaning”. Semantics, as an area of study, is very relevant to understanding the use of language. In the course of the semester, we will explore, among others, semantic theories; different types of meaning (e.g. denotative, connotative, stylistic, thematic, etc.); components of meaning; sense relations of lexemes; idiomatic expressions and collocations.</p> <p>The mode of delivery for this course will be discussions, group work, audio-visuals and individual work. Students’ personal experiences that relate to the course will be brought on board for analysis and discussion. Assessment will be done through quizzes, report writing, assignments and examinations. The course is in line with NTS 1a, 1b, 2c, NTECF bullets 1,5, and 7; p. 25.</p>						
<b>Course Learning Outcomes<sup>8</sup>: including INDICATORS for each learning outcome</b>	<p>Outcomes</p> <p>By the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>5. examine key conceptualisations on the definition of meaning (NTS 2c)</li> <li>6. discuss the sense relation between the English words (NTECF bullet 3 and 5, p. 25)</li> <li>7. identify the role of context in determine meaning (NTECF bullet 7, p. 25)</li> <li>8. identify factors that affect changes in word meaning. (NTECF bullet 5, p. 25)</li> </ol>				<p>Indicators</p> <ol style="list-style-type: none"> <li>1.1. discuss the major concept</li> <li>1.2. discuss the meaning of meaning</li> <li>2.1. examine the sense relations among similar English words</li> <li>2.2. discuss the broader view of sense relation</li> <li>3.1. create scenarios with a word</li> <li>3.2. examine their meaning and context.</li> <li>3.3. explain the context and meaning</li> <li>4.1. brainstorm on factors that affect meaning</li> <li>4.2. create scenarios to illustrate</li> <li>4.3. discuss the factors</li> </ol>		
<b>Course</b>	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve			

Content			learning outcomes
	1	Introduction	
		1.Introduction to Course Defining Semantics The meaning of “Meaning”	Create scenarios to guide students to discuss the concept of semantics. Tease students on the meaning of meaning
		Semantics in relation to other aspects of language: grammar and pragmatics	Discuss the link between Semantics and other disciplines
	2	Types of Meaning	Guide students to discuss types of meaning
		Conceptual vs other types of meaning – collocational, stylistics, affective, etc.	
	3	Defining Context	Create scenarios with a word
		Contextual Meaning	Examine their meaning and context.
		Word/Sentence/Utterance Meaning	Explain the context and meaning
	4	Context & Meaning	Examine the sense relations among similar English words
		Sense relations of single terms - synonymy/antonymy/homonymy/polysemy/homonymy	Discuss the broader view of sense relation
		Related Meaning of different terms- Inclusion/Complementation/overlapping	Discuss the key terms of Semantics
		Paradigmatic/ Syntagmatic Sense Relations	
	5	Sense Relation/	Brainstorm on factors that affect meaning
		Lexical Semantics	Create scenarios to illustrate
		Changes in the meanings of word	Discuss the factors that lead to changes in meaning
		Degeneration	
		Intensification	
		Weakening	
		Syndecdoche	
		Metonymy	

	6.	Changes in the meanings of word  Theories of semantics	Metaphorical Extension  Traditional semantics Contextualism Mentalism Generative semantics	Group students to find and present information on the theories of Semantics Guide them to discuss the theories, detailing their differences.
<b>Course Assessment Components<sup>9</sup>: (Educative assessment of, for and as learning)</b>	<p>Component 1: Formative assessment (40%)  Summary of assessment methods: Individual assignments- concept of meaning (10%); group presentation (10%) and a quiz – communication and lexical relations (20%)  Assessing Learning Outcomes: 1, 2, 3 and 4.</p> <p>Component 2: Summative assessment: (60%)  End of semester examination on units 1 – 6 to develop core skills such as knowledge application and personal development  Assessing Learning Outcomes: 1, 2, 3 and 4.</p>			
<b>Instructional Resources</b>	Projectors and computers, Audio-visuals, Dictionary and Phones			
<b>Required Text (core)</b>	Sekyi- Baidoo, Y.(2002). <i>Semantics: An introduction</i> . Kumasi: Wilas Press Ltd. Lyons, J., Thakur, D. (2009). <i>Linguistics simplified: Semantics</i> . New Delhi: Bharati-Bhawan			
<b>Additional Reading List<sup>10</sup></b>	Lyons, John. (1995). <i>Linguistic semantics: An introduction</i> . Cambridge: Cambridge University Press. Lyons, John. (1981). <i>Language and linguistics: An introduction</i> . Cambridge University Press			

Lyons, John. (1977). *Semantics I*. Cambridge. Cambridge University Press

Lyons, John. (1977). *Semantics II*. Cambridge. Cambridge University Press

Palmer, F.R. (1981). *Semantics*. Cambridge University Press

Yule, G. (1985). *The study of language*. Cambridge University Press

Palmer, F.R. (1981). *Semantics*. Cambridge University Press

## GENERAL PHYSICS

### CONTEXT

Physics, the study of matter, energy and their interactions, is a universal enterprise, which plays a key role in the future progress of humankind. Energy and work (energy as defined as the ability to do work) occupy an important part of our ordinary lives, and are among the most important topics in physics. Work, in terms of a physics related definition, has quite a different meaning than the type of work about which we normally think. In physics, work is performed only when an object is moved in the direction of an applied force. Energy in physics is defined as the ability to do work. Doesn't this seem logical? For the more energy you have, the more work you can accomplish and the more activities you can engage in. Physics is an exciting intellectual adventure that inspires young people and expands the frontiers of our knowledge about Nature. The General Physics course is intended to provide fundamental knowledge needed for the future technological advances that extends and enhances our understanding of the universe.

<b>Course Title</b>	<b>General Physics</b>						
<b>Course Code</b>	<b>EBS 227</b>	<b>Course Level:</b>	<b>200</b>	<b>Credit Value:</b>	<b>3</b>	<b>Semester</b>	<b>1</b>
<b>Pre-requisite</b>							
<b>Course Delivery Modes</b>	<b>Face -to -face <sup>1</sup></b> <input checked="" type="checkbox"/>	<b>Practical Activity <sup>2</sup></b> <input type="checkbox"/>	<b>Work-Based Learning <sup>3</sup></b> <input checked="" type="checkbox"/>	<b>Seminars <sup>4</sup></b> <input type="checkbox"/>	<b>Independent Study <sup>5</sup></b> <input checked="" type="checkbox"/>	<b>e-learning opportunities <sup>6</sup></b> <input checked="" type="checkbox"/>	<b>Practicum <sup>7</sup></b> <input type="checkbox"/>
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	This course will enable the students to deepen their knowledge and skills in topics treated in Integrated Science Physics at the senior high school level. It covers the following topical areas: measurement, density and relative density; forces, motions, machines, electronics, light, sound, heat, electricity and magnetic energy. The approaches that would be used in the delivery of this course should prepare trainees to ensure the learning progress of all students by projecting gender roles and issues relating to equity and inclusivity. (NTECF; NTS 2b, 2c, p13; 3e-3m, 3p, p14)						
<b>Course Learning Outcomes <sup>8</sup>: including INDICATORS for each learning outcome</b>	Outcomes: Upon successful completion of the course, learners will be able to:				Indicators		
	6. Develop skills of measurement involving the use of instruments. (NTS 2b, 2c, p13; 31, 3m, p14)				Develop skills of measurement-oriented activities to demonstrate the concept of measurement.		
	7. Identify the types of forces and their applications. (NTS 2b,				Describe the nature of forces in terms of:		



	2c, P13,13; 3f, 3j, p14)			Contact forces and Field forces Establish the relationship between MA, VR and E.
	8. . Gain an understanding of the basic principles and the experimental basis of optical instruments. (NST 2b, 2c, p12; 3g,3j, 3m, p14)			Demonstrate knowledge in the laws that govern the reflection and refraction of light on plane, curved and permeating surfaces.
	9. Acquire knowledge and understanding in the concept of current electricity and electronics. (NST 2b, 2c, p13; 31,3m, p14)			<ul style="list-style-type: none"> <li>• Demonstrate the concept of current electricity and be able to distinguish between parallel and series arrangement of cells and resistors.</li> <li>• Establish the relationship to compute the effective resistance of resistors in: Parallel Series</li> <li>• Develop skills and competence to differentiate between electrical components and electronic components</li> </ul>
	10. Gain an understanding in magnetism. (NTS 2b, 2c, p13;3f, 3j, p. 14)			<ul style="list-style-type: none"> <li>• Discuss the various ways that magnets can be made.</li> <li>• Identify the application and uses of magnets in the homes and industries.</li> <li>• Demonstrate an understanding in the principles and operation of the magnetic compass</li> </ul>
<b>Course Content</b>	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	1.	Measurement	<ul style="list-style-type: none"> <li>• Fundamental quantities</li> <li>• Derived quantities and units</li> <li>• Dimensional analysis.</li> <li>• Mass and weight</li> <li>• Measurement of time.</li> <li>• Measurement of temperature</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate what is meant by mass, length, time, luminous intensity, current, temperature, amount of substance and their units.</li> <li>• Explain what is meant by S.I. units</li> <li>• Explain what is meant by derived units</li> </ul>

				<p>including volume, density, force, work, power, speed, velocity, acceleration and their units.</p> <ul style="list-style-type: none"> <li>• Definition and expressions involving derived quantities.</li> <li>• Distinction between mass and weight.</li> <li>• Demonstrate the use of lever balance and chemical / beam balance to measure mass and spring balance to measure weight.</li> <li>• Demonstrate the use of clock to measure time with heartbeat, pendulum and stopwatch / clock.</li> <li>• Demonstrate the use of thermometer to measuring temperature in degrees Celsius and Kelvin.</li> <li>• Explain the Inter-conversion of Kelvin to degree Celsius and vice – versa with examples.</li> <li>• Explain the movement of heat between two bodies to establish thermal equilibrium and their uses and limitations.</li> </ul>
	2.	Density and Relative Density`33	<ul style="list-style-type: none"> <li>• Density</li> <li>• Relative Density</li> <li>• Archimedes principle</li> </ul>	<ul style="list-style-type: none"> <li>• Explain floatation by the use of the principle of density e.g. Hydrometer, balloon.</li> <li>• Explain the rationality behind Archimedes principle to the measurement of relative density.</li> <li>• Experimental determination for solids / liquids</li> </ul>

	3.	Motion and Pressure	<ul style="list-style-type: none"> <li>• Particles in motion Types of motion equations of motions graphs of motion Newton's laws of motion</li> <li>• Pressure</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the use of second law to derive <math>F = ma</math></li> <li>• Perform simple calculations on motions</li> <li>• Demonstrate the phenomenon of pressure in liquids.</li> <li>• Perform simple calculation on pressure.</li> <li>• Explain the application of pressure in liquids.</li> </ul>
	4.	Forces	<ul style="list-style-type: none"> <li>• Definition of force and turning effects of forces</li> <li>• Equilibrium of forces</li> <li>• Principles of moments</li> </ul>	<ul style="list-style-type: none"> <li>• Explain what is meant by force</li> <li>• Distinguish between the types of forces: Gravitational, magnetic, electrostatic, frictional, viscosity, capillarity, surface tension.</li> <li>• Explain adhesion and cohesion forces in liquids, turning forces, linear forces, static forces, etc.</li> <li>• Demonstrate the moments of a force about a point and its measurement.</li> <li>• Demonstrate parallel forces acting in one plane.</li> <li>• Demonstrate parallel forces in equilibrium.</li> <li>• Explain the use of lever devices in everyday use e.g. Crow-bar, wheel barrow.</li> <li>• Discuss the moments of a force / Torque</li> <li>• Explain the simple treatment of a couple e.g. turning of water tap.</li> <li>• Demonstrate the center of gravity and stability; unstable, stable and neutral equilibrium.</li> <li>• Explain the determination of center of gravity of regular and irregular objects</li> </ul>

				<ul style="list-style-type: none"> <li>using the plumb line method.</li> <li>• Explain the determination of center of gravity of regular and irregular lamina.</li> </ul>
	5.	Energy Work and Power	<ul style="list-style-type: none"> <li>• Sources of Energy</li> <li>• Forms of Energy,</li> <li>• Energy transformation,</li> <li>• Law of conservation of energy, work</li> <li>• Power</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss forms of energy and their transformations.</li> <li>• Perform simple calculations on work, power and energy</li> <li>• Explain the relation between work, power and energy.</li> </ul>
	6.	Machines	<ul style="list-style-type: none"> <li>• Simple machines</li> <li>• Classes of levers</li> <li>• Mechanical Advantage</li> <li>• Velocity Ratio</li> <li>• Efficiency</li> </ul>	<ul style="list-style-type: none"> <li>• Explain levers pulleys and inclined planes with practical examples</li> <li>• Distinguish between the classes of levers with practical examples.</li> <li>• Perform simple calculations involving Mechanical advantage, velocity ratio and efficiency of machines</li> </ul>
	7	Basic Electronics	<ul style="list-style-type: none"> <li>• Conductors</li> <li>• Insulators</li> <li>• Semi- Conductors</li> </ul>	<ul style="list-style-type: none"> <li>• Distinguish between conductors and insulators with practical examples.</li> <li>• Explain doping of semi-conductors with examples</li> <li>• Demonstrate forward bias and reverse bias using a light emitting diode and a power diode.</li> </ul>
	8	Optics	<ul style="list-style-type: none"> <li>• Reflection of light Regular and irregular reflection, laws of reflection formation of images. Characteristics of images.</li> <li>• Magnification <math display="block">m = \frac{v}{u}</math></li> <li>• Refraction of light</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate reflection of light by use of a mirror.</li> <li>• Demonstrate magnification by use of a magnifying glass</li> <li>• Demonstrate refraction by use of a rod placed in a transparent glass half filled with water.</li> <li>• Explain Snell's law and perform some computations with it.</li> </ul>

			<ul style="list-style-type: none"> <li>Mirror formula  <math display="block">\frac{1}{u} + \frac{1}{v} = \frac{1}{f}</math> </li> <li>Refraction of light at curved mirrors</li> </ul>	<ul style="list-style-type: none"> <li>Explain the use of convex and concave mirror uses in the security and automobile industries.</li> </ul>								
	9	Current Electricity and Magnetism	<ul style="list-style-type: none"> <li>series and parallel: arrangements of cells and resistor.</li> <li>Loss volt and internal resistance of batteries.</li> <li>Measurement of electric current, potential difference, resistance, emf and internal resistance of a cell.</li> <li>Ohms law  <math>V = IR, \text{Emf} = 1(r + R)</math> </li> <li>Magnetism            Properties of magnets            Types of magnets            Uses of magnets         </li> </ul>	<ul style="list-style-type: none"> <li>Explain with clear examples what is meant by a resistor</li> <li>Distinguish between the arrangement of resistors using practical examples in the class.</li> <li>Demonstrate the use of a voltmeter, ammeter, ohm meter in the measuring of potential difference, current and resistance respectively.</li> <li>Derive and perform calculations using ohms law to explain the effective resistance, current and voltage drop within an electrical circuit.</li> <li>Demonstrate the properties of magnets using two bar magnets with one suspended on a thread.</li> <li>Demonstrate the production of temporary magnet using a coil and a nail.</li> </ul>								
<b>Course Assessment Components<sup>9</sup> : (Educative assessment of, for and as learning)</b>	<p>A combination of formative and summative assessment including group tasks, quizzes, individual and take home assignment and examination will be used. <b>Assessment weighting:</b></p> <p><b>Component 1: Formative assessment</b></p> <table> <tr> <td>Quiz 1 (CLO 1, 2)</td> <td>10%</td> </tr> <tr> <td>Quiz 2 (CLO 3, 4, 5)</td> <td>10%</td> </tr> <tr> <td>Group tasks (CLO 8,9)</td> <td>10%</td> </tr> <tr> <td>Individual assignment (CLO 7)</td> <td>10%</td> </tr> </table> <p><b>Component 2: Summative assessment</b>          CLO 1-9. 60% Students will be graded as follows:  <b>A=80-100%; B+=75-79%; B =70-74%, C+ =65-69%, C= 60-64%, D+=55-59, D=50-54, E&lt; 50 (Fail)</b></p>				Quiz 1 (CLO 1, 2)	10%	Quiz 2 (CLO 3, 4, 5)	10%	Group tasks (CLO 8,9)	10%	Individual assignment (CLO 7)	10%
Quiz 1 (CLO 1, 2)	10%											
Quiz 2 (CLO 3, 4, 5)	10%											
Group tasks (CLO 8,9)	10%											
Individual assignment (CLO 7)	10%											
<b>Instructional Resources</b>	Computer assisted instruction, Interactive simulations, Smart phones, Google, YouTube, PowerPoint											

	Projections
<b>Required Text (core)</b>	Freedman, R. A. & Yound, H. D. (2008). <i>University physics</i> . (12 <sup>th</sup> ed.). Pearson and Addison Wesley.
<b>Additional Reading List</b> <sup>10</sup>	Gibbs, K. (2003). <i>Advanced Physics</i> . Cambridge: Cambridge University Press. Hudson, N. (1995). <i>Soil conservation</i> (3 <sup>rd</sup> ed.). London: B. T. Batsford Limited J.W. & Sarway, R. A. (2002). <i>Principles of physics</i> . (3 <sup>rd</sup> ed.) Harcourt College publishers. r, R., Halliday, D., & Walker, J. (2010). <i>Fundamentals of physics</i> . John Wiley & Sons Inc.

## GENERAL CURRICULUM STUDIES

### CONTEXT

Teachers play crucial role in the process of curriculum delivery because they are the mediators between the curriculum and the learners. Their interpretation of the curriculum affects the implementation of the curriculum and the learning outcomes of students. It is therefore important to equip prospective teachers with the knowledge and skills they need to effectively implement curriculum at the basic school level. This course orients the prospective basic school teacher to the basic school curriculum and other basic curriculum materials such as textbooks and teachers' guide and how they are used to promote effective teaching and learning.

<b>Course Title</b>	<b>General Curriculum Studies</b>						
<b>Course Code</b>	<b>EBS 215</b>	<b>Course Level:</b>	<b>200</b>	<b>Credit Value:</b>	<b>2</b>	<b>Semester</b>	<b>1</b>
<b>Pre-requisite</b>							
<b>Course Delivery Modes</b>	<b>Face -to -face <sup>1</sup></b>	<b>Practical Activity <sup>2</sup></b>	<b>Work-Based Learning <sup>3</sup></b>	<b>Seminars <sup>4</sup></b>	<b>Independent Study <sup>5</sup></b>	<b>e-learning opportunities <sup>6</sup></b>	<b>Practicum <sup>7</sup></b>
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	This course is designed to offer students the opportunity to discuss the structure and content of the school curriculum. Topics to discuss include, the concept of curriculum including the components of curriculum, differences between syllabus and curriculum, types of curriculum and factors affecting the sequencing of the content of the curriculum. Students will also be given the opportunity to discuss the general and specific objectives of the curriculum, as well as the mode of instruction and assessment prescribed in the curriculum. Course discussions will also include an emphasis on the standards-based curriculum, by focusing on the differences between objective-based and standards-based curriculum, terminologies associated with standards-based curriculum and issues such as, assessment, expectations/roles of teachers in implementing standards-based curriculum. <b>NTECF, NTS 1a, 1c and 1f p12.; NTS 2b, 2c, 2d and 2f, p13; NTS 3f, 3k, 3o and 3p, p14.</b>						
<b>Course Learning Outcomes <sup>8</sup>: including INDICATORS for each learning outcome</b>	<b>Outcomes:</b> <b>The course will enable students to be able to:</b>			<b>Indicators</b>			
	4. explain what curriculum is. <b>NTS 1c &amp; 1f, p12; 2b, 2c &amp; 2d, p13; 3k p14.</b>			1.3 Explain what curriculum is, giving examples 1.4 Explain what syllabus is, giving examples			
	5. distinguish between curriculum and topical outline of content that should be covered in the curriculum. <b>NTS 1c &amp; 1f, p12; 2b, 2c &amp; 2d, p13; 3k p14.</b>			2.1 explain the difference between curriculum and syllabus 2.2 explain the relationship between the general objectives of curriculum and specific objectives			
	6. explain the structure and content of school curriculum.			3.5 describe the general features of the school curriculum			

	<b>NTS 1c &amp; 1f, p12; 2b, 2c &amp; 2d, p13; 3k, 30, 3p, p14.</b>	3.6 Provide the overview of the content of the school curriculum (including the profile dimensions and their implication for teaching and assessment). 3.7 Explain issues relating to sequencing and progression of topics 3.8 Explain the relationship between concepts and their implications for teaching
4.0 explain the relationship between the general objectives and specific objectives of the curriculum	<b>NTS 1c &amp; 1f, p12; 2b, 2c &amp; 2d p13; 3k p14.</b>	4.1 outline and explain the relationship between the general objectives and specific objectives of the basic school curriculum. 4.2 outline and explain the implications of the relationship between the general objectives and specific objectives for teaching and learning
5.0 explain why teachers should have in-depth knowledge about the whole curriculum but not only topical outline of content to be covered.	<b>NTS 1c &amp; 1f, p12; 2b, 2c &amp; 2d, p13; 3k p14.</b>	5.1 outline and explain the reasons why teachers need to properly digest the rationale, the general aims and objectives, the specific minimum objectives, national minimum standard, the scope of the syllabus, approaches to teaching and learning among others before they start using the curriculum to teach.
6.0 distinguish between objective-based curriculum and standard-based curriculum.	<b>NTS 1c &amp; 1f, p12; 2b, 2c &amp; 2d p13; 3k p14.</b>	6.1 explain what objective-based curriculum is. 6.2 explain what standard-based curriculum is 6.3 explain the distinction between objective-based and standard-based curriculum.



	7.0 apply the knowledge gained through the course to implement both objective-based curriculum and standard-based curriculum. <b>NTS 1a, 1c &amp; 1f, p12; 2b, 2c, 2d &amp; 2f, p13; 3f, 3k, 3o &amp; 3p, p14.</b>			7.4 outline and explain the processes involved in the implementation of objective-based curriculum 7.5 outline and explain the processes involved in the implementation of standard-based curriculum 7.6 explain the need to take factors such as cultural, linguistic and socio-economic background of students into consideration in implementing the school curriculum.
	8.0 Outline and explain the basic curriculum materials and how they are used to promote learning at the basic school level. <b>NTS 1c &amp; 1f, p12; 2b, 2c, 2d &amp; 2f, p13; 3k p14.</b>			8.1 Define what basic curriculum materials are 8.2 identify the various basic curriculum materials 8.3 outline and explain the criteria for selection of the various curriculum materials 8.4 demonstrate the use of each of the curriculum materials
<b>Course Content</b>	<b>Units</b>	<b>Topics:</b>	<b>Sub-topics (if any):</b>	<b>Teaching and learning activities to achieve learning outcomes</b>
	1	Meaning of Curriculum	- Explanation of curriculum - Explanation of syllabus	- Project for students to explore the various conceptualizations of curriculum and syllabus in literature, in mixed ability groupings. - Discussion of what is a curriculum and what is a syllabus to create a shared understanding of the meaning of these two constructs. <b>NB:</b> For each of the approaches, encourage female trainees to play major roles, especially they should be given leadership responsibility. This will prepare them to be able to provide equal opportunities for boys and girls when they become qualified teachers.
	2	Distinction between curriculum and syllabus	- Difference between curriculum and syllabus	- Debates on a theme that will enable trainees to understand the distinction between curriculum and syllabus. For example. "Curriculum mean different thing to different people" - Discussion method will be used to provide the opportunity to create a shared understanding of the distinction between curriculum and syllabus.
	3	The structure and content of the	- General features of the school curriculum	- Case Study/Project for groups (mixed ability groups) of trainees to study the general features, content, and sequencing and

		Ghanaian Basic school curriculum	<ul style="list-style-type: none"> <li>- Overview of the content of the school curriculum</li> <li>- Sequencing and progression of topics</li> <li>- Comparison between the structure and content of the Ghanaian basic school curriculum and that of some developed countries</li> </ul>	<ul style="list-style-type: none"> <li>progression of topics in the school curriculum in one subject area at the basic school level.</li> <li>- Use jigsaw method to help trainees to discuss the general features, content, and sequencing and progression of topics in the various school curricula they studied in their previous case study groups</li> <li>- Use the question and answer method to summarise the features of the school curriculum, the overview of the content of the curriculum and sequencing and progression of topics.</li> <li>- Compare the structure and content of the Ghanaian basic school curriculum and that of the of some developed countries</li> </ul>
	4	Objectives of the Ghanaian Basic school curriculum	<ul style="list-style-type: none"> <li>- The relationship between the general objectives and specific objectives of the curriculum</li> </ul>	<ul style="list-style-type: none"> <li>- Use jigsaw method to get students to investigate the relationship between the general objectives and specific objectives in one subject area at the basic school level.</li> <li>- Use discussion method to summarise the relationship between the general objectives and the specific objectives</li> </ul>
	5	Why the study of the school curriculum?		<ul style="list-style-type: none"> <li>- Use discussion method to explain why teachers need to acquire in-depth understanding of whole curriculum (including the general aims and objectives of the curriculum) but not only topical outline of contents.</li> </ul>
	6	Types of curriculum	<ul style="list-style-type: none"> <li>- Objective-based curriculum</li> <li>- Standard-based curriculum</li> <li>- Distinction between objective-based and standard-based curriculum</li> </ul>	<ul style="list-style-type: none"> <li>- Use discussion method to explain what objective-based curriculum and standard-based curriculum are, and the distinction between the two types of curriculum.</li> </ul>
	7	Processes involved in curriculum implementation/delivery	<ul style="list-style-type: none"> <li>- Implementation of objective-based curriculum</li> <li>- Implementation of standard-based curriculum</li> </ul>	<ul style="list-style-type: none"> <li>- Give students project on the processes involved in the implementation of either objective-based or standard-based curriculum, using some specific examples.</li> <li>- Use question and answer method to summarise the processes involved in the implementation of objective-based curriculum and standard-based curriculum.</li> <li>- Discuss the need to take factors such as cultural, linguistic and</li> </ul>

				socio-economic background of students into consideration in implementing the school curriculum.
	8	The basic curriculum materials and how they are used to promote leaning	<ul style="list-style-type: none"> <li>- Definition of basic curriculum materials and examples</li> <li>- How to use the various curriculum materials such as textbooks and teachers guide to promote effective teaching</li> </ul>	<ul style="list-style-type: none"> <li>- Use discussion method to explain what curriculum materials are, giving some examples.</li> <li>- Give students project in mixed-ability groups to explore the use of various curriculum materials to promote effective teaching.</li> <li>- Use discussion method to summarize the main processes involved in the use of each of the basic curriculum materials.</li> </ul>
<b>Course Assessment Components<sup>9</sup>: (Educative assessment of, for and as learning)</b>	<b>Component 1:</b> Formative Assessment (Assignments, Project and Presentations)			
	Summary of Assessment Method: 3. Class assignment on the meaning of curriculum and distinction between curriculum and syllabus and the types of curriculum. Assesses CLO 1, 2 and 6 4. Projects and presentations on the structure and content of the Ghanaian basic school curriculum and processes involved in the implementation objective-based and standard-based curriculum. Students' portfolio on the projects will also be assessed. Assesses CLO 3 and 8 Weighting 30%			
	<b>Component 2:</b> Formative Assessment (Quiz) Summary of Assessment Method: Quiz on objectives of the Ghanaian basic school curriculum, why the study of the basic school curriculum and the basic curriculum materials Assesses CLO 4, 5 and 8 Weighting 10%			
<b>Component 3:</b> Summative Assessment End-of-Semester examinations to assess CLO 1 - 8. Weighting 60%				
<b>Instructional Resources</b>	<ol style="list-style-type: none"> <li>5. Basic school curriculum and other curriculum materials from Ghana and other developed countries</li> <li>6. Computer and accessories</li> <li>7. Projector</li> <li>8. Internet Resources</li> </ol>			
<b>Required Text (core)</b>	<p>R., Harris, M., &amp; Hill, R. R. (2012). <i>The learner-centred curriculum: Design and implementation</i>. England: John Wiley &amp; sons.</p> <p>on, I. (1987). <i>School subject and curriculum Change 2<sup>nd</sup> edition</i>. New York: the Falmer Press.</p>			

	<p>han, P., &amp; Thompson, C. (2004). <i>Curriculum materials: Scaffolds for new teacher learning?</i> Washington, Centre for the Study of Teaching and Policy, University of Washington.</p> <p>aves, H. D. (1982). <i>The Challenges for the Comprehensive School, Culture, Curriculum and Community 4<sup>th</sup> Edition</i>. London: Routledge and Kegan Paul.</p> <p>Nacino- Brown, R. et al. (1985). <i>Curriculum and Instruction – An Introduction to methods of teaching</i>. London: Macmillan Publisher Ltd.</p>
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## HEALTH, SAFETY AND SOCIAL ISSUES IN SCHOOLS

### CONTEXT

Physical education helps students to develop the skills, knowledge, and competencies to live healthy and physically active lives at school and for the rest of their life. They learn ‘in, through, and about’ movement, gaining an understanding that movement is integral to human expression and can contribute to people’s pleasure and enhance their lives. This course therefore seeks to empower trainees to participate in physical activity and understand how this influence their own well-being and that of their prospective students. By demonstrating the benefits of an active life style, they encourage others to participate in sport, dance, exercise, recreation, and adventure pursuits. Physical education engages and energises students. It provides authentic contexts in which to learn. In this course students are challenged to develop their physical, professional and interpersonal skills. This course will enable students to experience movement and understand the role that it plays in their lives and that of their prospective students. Students can contribute to the development of physical education programmes and choose their own level of participation. The resulting learning environment challenges their thinking and helps to promote an interest in lifelong leisure and recreational pursuits.

<b>Course Title</b>	<b>Health, Safety and Social Issues in Schools</b>						
<b>Course Code</b>	<b>EBS 219</b>	<b>Course Level:</b>	<b>200</b>	<b>Credit Value:</b>	<b>2</b>	<b>Semester</b>	<b>1</b>
<b>Pre-requisite</b>	<b>Student teacher must have knowledge in health, safety and social issues in the senior high school.</b>						
<b>Course Delivery Modes</b>	<b>Face -to -face</b> (√)	<b>Practical Activity</b> (√)	<b>Work-Based Learning</b> (√)	<b>Seminars</b> (√)	<b>Independent Study</b> (√)	<b>e-learning opportunities</b> (√)	<b>Practicum</b> (√)
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	This is a special course designed to provide students with knowledge and skills that will enable them improve the developmental quality of school children through better handling and health and safety management. It equips students with the ability to manage social, health, safety and sanitation issues effectively and to improve professional teacher accountability for the welfare of the school children. <b>NTS 1a pg. 12, 2c,d,e,f pg. 13, 3b,c,e,g,i,j,k,l,m pg. 14 and NTECF requirements.</b>						
<b>Course Learning Outcomes: including INDICATORS for each learning outcome</b>	<b>On successful completion of the course, student teachers will be able to:</b>				<b>Indicators</b>		
	CLO 1. Demonstrate Knowledge and understanding of how to identify factors that promote growth of children. (NTS 2c, pg13, 3d, pg14 )				1.1 Explain the phrase ‘growth and development’. 1.2 Describe the physical changes that may occur during growth and development.		

		1.3 Elucidate the factors that brings about growth and development in children.
	CLO 2. Demonstrate Knowledge and understanding of skills in handling school children. (NTS 2c,e,f, pg13, 3i, pg14)	2.1 Enumerate the skills needed to handle basic school children in general. 2.2 Recommend and explain advance skills that teachers need in order to handle school children.
	CLO 3. Demonstrate Knowledge and understanding of how to manage any adverse conditions in the school environment. (NTS 2c, pg13, 3b, pg14 )	3.1 Mention and describe the various types of hostile situations in school environments. 3.2 Categorize them into levels of increasing severity. 3.3 Determine ways of handling each category and related issues.
	CLO 4. Demonstrate Knowledge and understanding of how to advocate for providing a conducive environment in the school. (NTS 2a,c, pg13, 3b, pg14)	4.1 Paint a picture of how an ideal school environment should look like. 4.2 Develop a framework for ‘dos and don’ts’ of stakeholders of the school. 4.3 Out of the framework, develop a one page document to be provided to authorities ( staff, assistant headteacher, headteacher, school management board, District Director of Education, Regional Director of Education, Director General of Education, etc,) as a conducive environmental working document for your school.
	CLO 5. Demonstrate Knowledge and understanding of how to liaise with the stake holders to develop school children to achieve the desirable goals. (NTS 2a,c, pg13, 3b, pg14)	5.1 List a number of achievable goals you would want to realize as a school teacher for the children in a term/year. 5.2 State the various ways through which the teacher can communicate with stakeholders of the school for various assistance in order to achieve these goals.
	CLO 6. Demonstrate Knowledge and understanding of	6.1 Mention and explain the various injuries and

	<p>how to identify and advocate for health and safe practices in the school. (NTS 2a,c, pg13, 3b, pg14)</p>			<p>diseases that school children are likely to get from the school environment. 6.2 Identify the nature and various visible symptoms of the listed injuries and diseases respectively. 6.3 Develop a notice on health and safety practices to be posted on the classroom door(s)/notice board(s) after approval by the Headteacher.</p>
	<p>CLO 7. Demonstrate Knowledge and understanding of practical procedures in First Aid. (NTS 2a,c, pg13, 3b, pg14)</p>			<p>7.1 Briefly explain the scope of First Aid in general. 7.2 Describe briefly what is expected of pre-school teacher when various First Aid issues arise in the class room.</p>
	<p>CLO 8. Demonstrate Knowledge and understanding of outlining steps in dealing with emergency health problems with school children.</p>			<p>8.1 Create various scenarios of emergency health issues that may occur in class. 8.2 List the chronological first aid steps to take in order to salvage the situation.</p>
<p><b>Course Content: Health, Safety and Social Issues in ECE</b></p>	<p><b>Units</b></p>	<p><b>Topics:</b></p>	<p><b>Sub-topics (if any):</b></p>	<p><b>Teaching and learning activities to achieve learning outcomes</b></p>
	<p>1</p>	<p>Promoting Growth in Children</p>	<ul style="list-style-type: none"> <li>• Factors affecting growth of children <ul style="list-style-type: none"> <li>Psycho-social</li> <li>Psychological, Social and Play (materials, space, time supervision)</li> <li>Health-Physical (shelter/protection, safety, rest, sleep) and Nutrition (food and</li> </ul> </li> </ul>	<p>Discussion</p>

			<p>water)</p> <ul style="list-style-type: none"> <li>• Role of schools, teachers and parents in promoting growth in children</li> </ul>	
<b>2</b>	Ensuring a Healthy Environment for Children	<ul style="list-style-type: none"> <li>• Importance of a healthy environment</li> <li>• Environmental safety/sanitation</li> <li>• Role of school, teachers, parents and community in promoting a healthy school and community environment</li> </ul>	Discussion/Observation/Transect walk/Role play/Field trip to school	
<b>3</b>	Building a Healthy Social Environment	<ul style="list-style-type: none"> <li>• Consistency, Routines and Limits</li> <li>• Encouraging desirable expressions of feelings</li> <li>• Behaviour modelling (children with different behaviour/attitudes)</li> <li>• Facilitating social skills</li> <li>• Games or group activities to develop acceptable behaviour (indoor and outdoor</li> </ul>	Discussion/Observation/Modelling/Demonstration/Role play	



			activities)	
	<b>4</b>	Injuries and First Aid	<ul style="list-style-type: none"> <li>• Common injuries at the school</li> <li>• Source of injuries among children</li> <li>• First aid for wounds</li> <li>• Importance of first aid in schools</li> <li>• Minimizing the occurrence of injuries (safety practices)</li> <li>• Managing first aid kit and child referrals</li> </ul>	Discussion/Demonstration/Role play
	<b>5</b>	Child Nutrition	<ul style="list-style-type: none"> <li>• Food types/groups</li> <li>• Nutrients (Protein, carbohydrate etc.)</li> <li>• Nutritional requirements of children</li> <li>• Various nutritional levels</li> <li>• Identifying children with nutrient deficiencies (signs and symptoms of good and poor nutrition)</li> <li>• Factors affecting choice of food</li> <li>• Importance of nutrition in school children</li> </ul>	Discussion/Case studies/Brainstorming/Guest speaker

	<b>6</b>	Common Diseases among Pre-schoolers	<ul style="list-style-type: none"> <li>• Congenital diseases</li> <li>• Intestinal infections</li> <li>• Respiratory Tract infections</li> <li>• Malarial diseases</li> <li>• The need for knowledge on the diseases</li> <li>• Causes, effects and preventive measures</li> <li>• Hygiene practices (hand washing, food and water safety, toileting and diapering, etc.)</li> </ul>	Case studies/Discussion/Guest speaker/Demonstration
Course Assessment Components: (Educative assessment of, for and as learning)	<b>COMPONENTS 1 &amp; 2 FORMATIVE ASSESSMENTS - 40% AND COMPONENT 3, SUMMATIVE - 60%</b>			
	Component 1 Formative assessment Quizzes and Exercises 20% Assesses: CLO 1,2,3,4,5,6 and 7 (NTS 1b, 2c, d, e, 3 a, c, h; NTECF 16,20, 45 )			
	Component 2 Practical observation, group and individual presentations and analysis of various activities. 20% Assesses : CLO 1, 2, 3, 4, 5, 6 and 7 (NTS 1b, 2c, d, e, 3 a, c, h; NTECF 16, 20 45 )			
	Component 3 Summative assessment ( End of semester examination on units 1 to 8 ) 60%			
Instructional Resources	<ol style="list-style-type: none"> <li>1. Projector and screen</li> <li>2. Computer (Laptop) for playing back</li> <li>3. First Aid box, Student Mattress, Gloves, etc,</li> </ol>			
Required Text (core)	Hamill, P. V. V. (1977). <i>NCHC growth curves for children, vital and health statistics: Series II, data from</i>			

	<p><i>the national health survey</i>, No. 165. Washington, DC: US Government Printing Office. (DWE1178-1650).</p> <p>Ogah, J. K. (2009). <i>A basketful of health and safety for the early childhood environment</i>. Paper presented at the National Conference on Early Childhood Education. University of Cape Coast. December 16-17, 2009.</p>
Additional Reading List	<p>Ogah, J. K. (2010). <i>Developing and promoting active lifestyles for healthy living and national development</i>. West Africa Journal of Physical &amp; Health Education, 14, 47-70.</p> <p>Sue, R. W. (1994). <i>Essentials of nutrition and diet therapy</i> (6<sup>th</sup> ed.). St Louis: The C.V. Mosby Company. Boston: WCB/McGraw Hill.</p>

**CITIZENSHIP EDUCATION**

**Comment [S1]:** No Course content

## HEALTH AND PHYSICAL FITNESS

### CONTEXT

Physical education helps students to develop the skills, knowledge, and competencies to live healthy and physically active lives at school and for the rest of their life. They learn ‘in, through, and about’ movement, gaining an understanding that movement is integral to human expression and can contribute to people’s pleasure and enhance their lives. This course therefore seeks to empower trainees to participate in physical activity and understand how this influence their own well-being and that of their prospective students. By demonstrating the benefits of an active life style, they encourage others to participate in sport, dance, exercise, recreation, and adventure pursuits. Physical education engages and energises students. It provides authentic contexts in which to learn. In this course students are challenged to develop their physical, professional and interpersonal skills. This course will enable students to experience movement and understand the role that it plays in their lives and that of their prospective students. Students can contribute to the development of physical education programmes and choose their own level of participation. The resulting learning environment challenges their thinking and helps to promote an interest in lifelong leisure and recreational pursuits.

<b>Course Title</b>	<b>Health and Physical Fitness</b>						
<b>Course Code</b>	<b>EBS 218</b>	<b>Course Level:</b>	<b>200</b>	<b>Credit Value:</b>	<b>1</b>	<b>Semester</b>	<b>1</b>
<b>Pre-requisite</b>	<b>Student teachers must have knowledge in Health and Physical fitness activities in the senior high school.</b>						
<b>Course Delivery Modes</b>	<b>Face -to -face</b> (√)	<b>Practical Activity</b> (√)	<b>Work-Based Learning</b> (√)	<b>Seminars</b> (√)	<b>Independent Study</b> (√)	<b>e-learning opportunities</b> (√)	<b>Practicum</b> (√)
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	<p>This course equips students with competencies to enable them to choose and pursue active and healthy lifestyles. It involves the concept of wellness and physical fitness. Emphasis is placed on knowledge and skill acquisition in health related fitness and the various factors that affect wellness and fitness. The course includes practical components related to physical activity, health examination and personal and group exercise planning. Practical activities include jogging, power walking, aerobics, skipping, weight training, etc. Drug use and dietary practices are also examined.</p> <p><b>NTS 1a pg 12, 2c,d,e,f pg 13, 3b,c,e,g,i,j,k,l,m pg 14 and NTECF requirements.</b></p>						
<b>Course Learning Outcomes: including INDICATORS for each learning</b>	<b>On successful completion of the course, student teachers will be able to:</b>				<b>Indicators</b>		
	CLO 1. Demonstrate Knowledge and understanding of how to measure and monitor changes in the human body				1.1 Explain the phrase ‘body adaptation to exercise’.		

<b>outcome</b>	as a result of physical activity . (NTS 2c, pg13, 3d)			1.2 Describe the physical changes that may occur as a result of physical activities. 1.3 Elucidate how to measure these physical changes that may occur due to the physical activity.
	CLO 2. Demonstrate Knowledge and understanding of how to articulate the benefits of regular physical activity. (NTS 2c,e,f, pg13, 3i, pg14)			2.1 State the effects of acute and chronic bouts of physical activity. 2.2 Recommend and explain the benefits or otherwise of engaging in these bouts.
	CLO 3. Demonstrate Knowledge and understanding of how to differentiate between health related and motor skill related physical fitness. (NTS 2c, pg13, 3b, pg14 )			3.1 Mention and describe the various types of physical fitness activities. 3.2 Categorize the activities into health related and motor skill physical fitness related.
	CLO 4. Demonstrate Knowledge and understanding of how to develop the attitude of keeping fit and living healthy. (NTS 2a,c, pg13, 3b, pg14)			4.1 Develop interesting physical activities that are addictive in nature. 4.2 Briefly describe eating habits for wellbeing. 4.3 Demonstrate the effect of bad eating habits.
	CLO 5. Demonstrate Knowledge and understanding of how to develop fitness programmes that meet the needs of individuals and special groups. (NTS 2a,c, pg13, 3b, pg14)			Develop physical activity schedules for: 5.1 beginners 5.2 intermediates 5.3 experts 5.4 persons with special needs
	CLO 6. Demonstrate Knowledge and understanding of practical activities that enhance physical fitness. (NTS 2a,c, pg13, 3b, pg14)			6.1 Mention and explain physical activities that positively impacts fitness. 6.2 Demonstrate the various intensities needed to achieve the positive impact.
	CLO 7. Demonstrate Knowledge and understanding of the role of lifestyle practices in health and wellness. (NTS 2a,c, pg13, 3b, pg14)			7.1 Identify the various lifestyles that affects the health and wellness of individuals. 7.2 Briefly describe alternatives that has a positive influence.
<b>Course Content: Physical Fitness and</b>	<b>Units</b>	<b>Topics:</b>	<b>Sub-topics (if any):</b>	<b>Teaching and learning activities to achieve learning outcomes</b>

<b>Wellness</b>	<b>1</b>	Physical Fitness and Wellness	<ul style="list-style-type: none"> <li>• Definition of Physical Fitness and Wellness.</li> <li>• Benefits of being fit and well (social, economic, emotional and personal)</li> </ul>	Discussion/Brainstorming
	<b>2</b>	Physical Fitness	<ul style="list-style-type: none"> <li>• Types – Health-related and Motor skill-related</li> <li>• Components – definition and how to enhance.</li> </ul>	Discussion/Demonstration
	<b>3</b>	Components of Wellness	<ul style="list-style-type: none"> <li>• Physical, Social, Emotional, Spiritual, Environmental, Occupational, Intellectual</li> </ul>	Discussion
	<b>4</b>	Knowing your Body	<ul style="list-style-type: none"> <li>• Taking of heart rate, blood pressure, BMI and body composition</li> </ul>	Practical measurements
	<b>5</b>	Nutrition and Wellness	<ul style="list-style-type: none"> <li>• Relationship between nutrition and diet</li> <li>• The role of nutrition and health</li> <li>• Dietary practices and their effects on wellness</li> </ul>	Discussion
	<b>6</b>	Lifestyle and wellness	<ul style="list-style-type: none"> <li>• Role of lifestyle practices in health – physical activity, alcohol, tobacco and other drugs, rest, sleep, recreation, etc.</li> </ul>	Discussion/Debate/Mock trial/Sharing personal experiences
	<b>7</b>	Fitness	<ul style="list-style-type: none"> <li>• Procedure for beginning a</li> </ul>	Discussion

		Programme	fitness programme <ul style="list-style-type: none"> <li>• Basic elements of training activities (warm up, workout, cool down)</li> </ul>	Problem solving Project
	<b>8</b>	Physical Fitness and Wellness Practical Activities	<ul style="list-style-type: none"> <li>• Promotion of physical fitness and wellness(education and exercise)</li> <li>• Procedures for teaching basic movement activities(warm up sessions, activity sessions, etc)</li> <li>• Practical(motor) activities for children (Power walking and jogging, aerobic dance, etc)</li> </ul>	Practical activities carried out throughout the semester
Course Assessment Components: (Educative assessment of, for and as learning)	<b>COMPONENTS 1 &amp; 2 FORMATIVE ASSESSMENTS - 40% AND COMPONENT 3, SUMMATIVE - 60%</b>			
	Component 1 Formative assessment Quizzes and Exercises 20% Assesses: CLO 1,2,3,4,5,6 and 7)			
	Component 2 Practical observation, group and individual presentations and analysis of various activities. 20% Assesses : CLO 1, 2, 3, 4, 5, 6 and 7 (NTS 1b, 2c, d, e, 3 a, c, h; NTECF 16, 20 45 )			
	Component 3 Summative assessment ( End of semester examination on units 1 to 8 ) 60%			
Instructional	4. Projector and screen			



Resources	<p>5. Computer (Laptop) for playing back</p> <p>6. Cones, markers, stop watches, whistles, tape measures, P.A. System, Score sheets, memo pads etc.</p>
Required Text (core)	<p>Ammah, J. (2004). <i>Physical education for the basic school teacher</i>. Winneba: The Institute for Educational Development and Extension.</p> <p>Karbo, J., Ogah, J. K., &amp; Domfeh, C. (2005). <i>An introduction to physical education</i> (Centre for Continuing Education Module, University of Cape Coast). Cape Coast: University Printing Press.</p>
Additional Reading List	<p>Arends, R. (1995). <i>Learning to teach</i>. New York, NY: McGraw Hill, Inc.</p> <p>Attah, K. K., &amp; Awuni, W. (2001). <i>Teaching physical education in basic schools</i>. Accra: Ministry of Education.</p> <p>Bucher, C. A. (1992). <i>Foundations of physical education</i>. New York, NY: C.V. Mosby.</p> <p>Domfeh, C., Attah, K. K., &amp; Ayensu, E. K. (2006). <i>Teaching physical education: A guide to teachers</i>. Kumasi: Learners Publishers.</p> <p>Lumpkin, A. (1998). <i>Physical education and sport</i> (4<sup>th</sup> ed.). New York, NY: WCB/McGraw-Hill.</p> <p>Ogah, J. K. (2010). Developing and promoting active lifestyles for healthy living and national development. <i>West Africa Journal of Physical &amp; Health Education</i>, 14, 47-70.</p> <p>Ogah, J. K. (2009). <i>A basketful of health and safety for the early childhood environment</i>. Paper presented at the National Conference on Early Childhood Education. University of Cape Coast. December 16-17, 2009.</p> <p>Sue, R. W. (1994), <i>Essentials of nutrition and diet therapy</i> (6<sup>th</sup> ed.). St Louis: The C.V. Mosby Company.</p> <p>Wuest, D. A., &amp; Bucher, C. A. (2001). <i>Foundations for physical education and sport</i>. Boston: WCB/McGraw Hill.</p>

## CROP PRODUCTION

### CONTEXT

Ghana's agriculture is largely dominated by crop production. Crops grown include a wide variety of grains, legumes, vegetables (traditional and exotic), palms, fruits and plantation crops. The cultivation of these crops has become progressively challenging as a result of environmental degradation, climate change and impoverished soils. This problem is compounded by rapidly growing population that require more agricultural produce for food, especially in Africa and other developing countries.

Course Title	Crop Production						
Course Code	EBS 205	Course level:	200	Credit Value:	3	Semester	1
Prerequisite							
Course Delivery Modes	Face-to Face X	Practical Activity X	Independent Study X	Seminar X	Work-Based Learning	E-Learning	Practicum
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	<p>The course is intended to provide students with the understanding of the basic principles of crop production, paying specific attention to land selection and preparation, nursery practices, agronomic practices, pests and diseases management, and harvesting in the production of vegetables, ornamental field and plantation crops. This course will also expose students to development of business plan for crop production.</p> <p>The course will be facilitated through face-to-face interaction with students, practical demonstrations of technologies and best practices, students' independent study, Work-Based Learning, Practicum and E-Learning and field observation.</p> <p>NTECF; NTS 1 a-g, NTS 2 a-f, NTS 3 a-d</p>						
	Outcomes Upon successful completion of this course, the student will:			Indicators			
Course Learning Outcomes: including INDICATORS for each Learning	<p>CLO1. importance of crops production <i>NTS 1 a-g, NTS 2 a-f, NTS 3 a-d</i></p> <p>CLO2. principles governing the production of vegetables, ornamental, field and plantation crops <i>NTS 1 a-g, NTS 2 a-f, NTS 3</i></p>			<p>1.1 Outline the importance of crop production.</p> <p>2.1 Discuss the basic principles and practices of crop production (such as nursery practices, planting, cultural practices, harvesting, etc.)</p> <p>3.1 Explain the principles of pests and diseases management in</p>			

Outcome	<i>a-d</i> CLO3. principles of pests and diseases management <i>NTS 1 a-g, NTS 2 a-f, NTS 3 a-d</i> CLO4. apply the principles of production and pests and disease management to produce one vegetable crop. <i>NTS 1 a-g, NTS 2 a-f, NTS 3 a-d</i>		crop production 4.1 develop a business plan for crop production (vegetables, ornamental, and field crops).	
Course content	Units	Topics	Sub-topics (if any)	Teaching and learning activities to achieve learning outcomes
	1	importance of crops production		Brainstorming
	2	principles governing the production of vegetables, ornamental, field and plantation crops		Principles governing the production of vegetables, ornamental, field and plantation crops will be treated using lectures, group discussions, and field observation.
	3	principles of pests and diseases management		principles of pests and diseases management will be treated using lectures, group discussions, and practical activities on the farm
	4	business planning for production of vegetable crop		Using PowerPoint illustrations and examples from the internet students acquire the skill of preparing business plan for vegetable crop production
Course Assessment (Educative assessment of, for, and as learning)	Formative: Assessment of students' skills and involvement in practical field activities through observation Weighting: 10% CLO 3-4 Assessment of students' vegetable projects for effectiveness of pest management, yield and quality. Weighting: 30% CLO3 Summative: Class tests using paper and pencil tests to assess students' level of knowledge and understanding of importance and basic principles of crops production CLO 1-2 Weighting: 20% End of Semester Examination covering CLO 1-4			

	Weighting: 40%
Instructional Resources	Computer (Lap-top) VCR Video projector Internet resource (Videos from YouTube)
Required Text (core)	Ennis, Jr. W. B (1979). <i>Introduction to crop protection</i> . American society of agronomy and crop science society of America. Medison, Wisconsin. USA. Gopalakrishnan, T. R. (2007). <i>Vegetable crops</i> . New Delhi: New India Publishing. Sinnadurai, S. (1973). <i>Vegetable production in Ghana</i> . Acta Hortic. 33, 25-28.DOI: 10.17660/ActaHortic.1973.33.3 Pratley J. E. (2003). <i>Principles of field crop production</i> . Oxford University Press. 550 pages Martin J. H. , Waldren R. P., & Stamp, D. L. (2006). <i>Principles of field crop production</i> . Pearson Prentice Hall, - Technology & Engineering - 954 pages Singh, S.S. (1988). <i>Principles &amp; practices of agronomy</i> . New Delhi:Kalyani Publishers Welbaum, G. E. (2015). <i>Vegetable production and practices</i> . Wallingforth, Oxfordshire, UK: CAB International

## GAME ACTIVITIES FOR BASIC SCHOOLS

### CONTEXT

Physical education helps students to develop the skills, knowledge, and competencies to live healthy and physically active lives at school and for the rest of their life. They learn ‘in, through, and about’ movement, gaining an understanding that movement is integral to human expression and can contribute to people’s pleasure and enhance their lives. This course therefore seeks to empower trainees to participate in physical activity and understand how this influence their own well-being and that of their prospective students. By demonstrating the benefits of an active life style, they encourage others to participate in sport, dance, exercise, recreation, and adventure pursuits. Physical education engages and energises students. It provides authentic contexts in which to learn. In this course students are challenged to develop their physical, professional and interpersonal skills. This course will enable students to experience movement and understand the role that it plays in their lives and that of their prospective students. Students can contribute to the development of physical education programmes and choose their own level of participation. The resulting learning environment challenges their thinking and helps to promote an interest in lifelong leisure and recreational pursuits.

<b>Course Title</b>	<b>Game Activities for Basic Schools</b>						
<b>Course Code</b>	<b>EBS 213</b>	<b>Course Level:</b>	<b>200</b>	<b>Credit Value</b>	<b>2</b>	<b>Semester</b>	<b>1</b>
<b>Pre-requisite</b>	Student teachers have knowledge in some games played in the senior high school and level 100.						
<b>Course Delivery Modes</b>	<b>Face - to - face</b> (√)	<b>Practical Activity</b> (√)	<b>Work- Based Learning</b> (√)	<b>Seminars</b> (√)	<b>Independent Study</b>	<b>e-learning opportunities</b>	<b>Practicum</b> (√)
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	The purpose of this course is to introduce students to a variety of developmentally appropriate games for children to express and challenge themselves and to have fun. These activities include fundamental movement skills involving throwing, catching, pulling, pushing, striking, dodging, running and jumping. Some activities require individual challenge but others require teamwork and cooperation. Selected activities include those found in the school syllabus, focusing on football, netball, volleyball and handball. Students will be taken through the process and principles of selecting or designing game activities for children.  <b>NTS 1a pg 12, 2c,d,e,f pg 13, 3b,c,e,g,i,j,k,l,m pg 14 and NTECF requirements.</b>						
<b>Course Learning Outcomes: including</b>	<b>On successful completion of the course, student teachers will be able to:</b>				<b>Indicators</b>		
	CLO 1. Demonstrate Knowledge and understanding of how to exhibit movement skills such as throwing,				1.1 Explain and demonstrate activities that leads to coordination development.		

<b>INDICATORS for each learning outcome</b>	catching, pushing, dodging, running and kicking in physical education and sports activities. (NTS 2c, pg13, 3d, pg14)		1.2 Demonstrate basic throwing, catching, pushing, dodging, running and kicking activities.	
	CLO 2. Demonstrate Knowledge and understanding of the various skills in football, netball, volleyball and handball. (NTS 2c,e,f, pg13, 3i, pg14)		2.1 Be able to perform the progressive basic skills in the selected events. 2.2 Demonstrate how to teach these progressive skills from the basics to the end.	
	CLO 3. Demonstrate Knowledge and understanding of how to construct the playing surfaces of the four sports. (NTS 2c, pg13, 3b, pg14)		3.1 Should be able to demonstrate knowledge of construction in Core Mathematics from SHS. 3.2 Should be able to construct scaled down sectors. 3.3 Should be able to transfer the scaled drawing into reality on the field.	
	CLO 4. Demonstrate Knowledge and understanding of how to apply tactics in game situations . (NTS 2a,c, pg13, 3b, pg14)		4.1 Demonstrate the understanding of basic tactics in the selected games. 4.2 Be able to explain how the various tactics in the selected disciplines work.	
	CLO 5. Demonstrate Knowledge and understanding of how to interpret the rules governing the sports in game situations. (NTS 2a,c, pg13, 3b, pg14)		5.1 Demonstrate basic knowledge of rules in the selected games. 5.2 Get the understanding of the spirit of the rules. 5.3 Be able to explain the rules.	
<b>Course Content: Game Activities for Basic Schools</b>	<b>Units</b>	<b>Topics:</b>	<b>Sub-topics (if any):</b>	<b>Teaching and learning activities to achieve learning outcomes</b>
	1	Fundamental Movement and Skills	<ul style="list-style-type: none"> <li>Locomotor activities – running (e.g. <i>pilolo</i>, rats and rabbits, <i>antoankyire</i>, number games, etc), jumping (eg <i>ampe</i>, skipping, <i>tumatu</i>), pulling (e.g. picking tails), clapping (e.g. <i>ampe</i>)</li> <li>Non-locomotor – rhythmic clapping (<i>Robert Mensah</i>), pulling (e.g. tug of war)</li> <li>Manipulative skills – <i>chaskele</i>, ball juggling games, bouncing games, dribbling games, ball-hand-eye</li> </ul>	Demonstration Practical

			coordination activities, target hitting games (darts, bowling etc.)	
	2	Basic skills in football netball, handball, and volleyball	<ul style="list-style-type: none"> <li>• Various fundamental techniques in all listed games</li> <li>• Player positions</li> <li>• Tactics of play</li> <li>• Construction of various playing surfaces</li> <li>• Rules of the games</li> </ul>	Discussion/Demonstration/Observation/Practical
<b>Course Assessment Components: (Educative assessment of, for and as learning)</b>	<b>COMPONENTS 1 &amp; 2 FORMATIVE ASSESSMENTS - 40% AND COMPONENT 3, SUMMATIVE - 60%</b>			
	<b>Component 1</b> Formative Assessment Quizzes and Exercises 20% Assesses: CLO 1,2,3,4 and 5 (NTS 1b, 2c, d, e, 3 a, c, h)			
	<b>Component 2</b> Practical observation, group and individual presentations and analysis of various activities. 20% Assesses : CLO 1, 2, 3, 4 and 5 (NTS 1b, 2c, d, e, 3 a, c, h )			
	<b>Component 3</b> Summative assessment (End of semester examination on units 1 and 2 ) 60%			
<b>Instructional Resources</b>	<ol style="list-style-type: none"> <li>1. Projector and screen</li> <li>2. Computer (Laptop) for playing back</li> <li>3. Cones, markers, stop watches, whistles, tape measures, Footballs, Volleyballs, Netballs and Handballs, etc.</li> </ol>			
<b>Required Text (core)</b>	<p>Ammah, J. (2004). <i>Physical education for the basic school teacher</i>. Winneba: The Institute for Educational Development and Extension.</p> <p>Karbo, J., Ogah, J. K., &amp; Domfeh, C. (2005). <i>An introduction to physical education</i> (Centre for Continuing Education Module, University of Cape Coast). Cape Coast: University Printing Press.</p>			
<b>Additional Reading List</b>	<p>Arends, R. (1995). <i>Learning to teach</i>. New York, NY: McGraw Hill, Inc.</p> <p>Attah, K. K., &amp; Awuni, W. (2001). <i>Teaching physical education in basic schools</i>. Accra: Ministry of Education.</p> <p>Bucher, C. A. (1992). <i>Foundations of physical education</i>. New York, NY: C.V. Mosby.</p> <p>Domfeh, C., Attah, K. K., &amp; Ayensu, E. K. (2006). <i>Teaching physical education: A guide to teachers</i>. Kumasi: Learners Publishers.</p> <p>Lumpkin, A. (1998). <i>Physical education and sport</i> (4<sup>th</sup> ed.). New York, NY: WCB/McGraw-Hill.</p> <p>Ogah, J. K. (2010). Developing and promoting active lifestyles for healthy living and national development. <i>West Africa</i></p>			

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Ogah, J. K. (2009). *A basketful of health and safety for the early childhood environment*. Paper presented at the National Conference on Early Childhood Education. University of Cape Coast. December 16-17, 2009.

Sue, R. W. (1994), *Essentials of nutrition and diet therapy* (6<sup>th</sup> ed.). St Louis: The C.V. Mosby Company.

Wuest, D. A., & Bucher, C. A. (2001). *Foundations for physical education and sport*. Boston: WCB/McGraw Hill.



## GHANAIAI LANGUAGE AND CULTURE-ESSAY WRITING

### CONTEXT

Students have been exposed to the syntactic rules and principles governing the writing of our various Ghanaian Languages. This course therefore offers them the opportunity to put into practice the knowledge acquired and apply it to writing of the various types of essay. The student teacher will be taken through the rudiment of essay writing: the paragraph, the topic sentence, the major support sentence, minor support sentence and how these relate to the thesis statement.

<b>Course Title</b>	<b>Ghanaian Language and Culture-Essay Writing</b>						
<b>Course Code</b>	<b>EBS 233</b>	<b>Course Level 200</b>	<b>Credit value 2</b>	<b>Semester: 1</b>			
<b>Pre-requisite</b>	N/A						
<b>Course Delivery Modes</b>	<b>Face-to-face</b> √	<b>Practical Activity</b> √	<b>Work-based learning</b> √	<b>Seminars</b> √	<b>Independent Study</b> √	<b>e-learning opportunities</b> √	<b>Practicum</b>
<b>Course Description</b>	<p>This course aims to equip students with the skill of writing well-structured essays in the Ghanaian Language and determine structural accuracy of given written essays. Emphasis will be laid on the main components of the essay such as the Paragraph (topic, sentence, major and minor support sentences), introduction, body and the conclusion.</p> <p>It will also look at the types of essay, which include descriptive, narrative, expository, and argumentative/ debate as well as letter writing (formal/informal). The course is designed to meet the following NTS, NTECF, BSC, GLE expectations and requirements: NTECF, (NTS1a,b:12), (NTS 2c:13), (NTS 2f:13), (NTS 3e:14), (NTS3j:14), .</p>						
<b>Course learning outcome including INDICATORS for each learning outcome</b>	On the successful completion of the course student teacher will be able to:						

	<b>Outcomes</b>	<b>Indicators</b>
	<p><b>CLO 1</b> Outline and explain the components of an essay (NTS)</p> <p><b>CLO 2</b> write descriptive, narrative, argumentative/debate, expository essays</p> <p><b>CLO 3</b> write formal/informal letters</p> <p><b>CLO 4</b> use the different forms of essay and letter writing appropriately in the Ghanaian Language</p>	<ul style="list-style-type: none"> <li>• be aware of the significance of their culture</li> <li>• acquire a comparative knowledge of their customs and that of other people</li> <li>• realize that language and culture are linked</li> <li>• enrich their vocabulary and terminology</li> </ul>

<b>Course content</b>	<b>Units:</b>	<b>Topics:</b>	<b>Sub-topics:</b>	<b>Suggested Teaching Learning Activities</b>
		<p>The Essay: planning and Organization</p> <p>The Paragraph</p> <p>Identifying parts of the essay</p> <p>Types of Essays</p> <p>Letter Writing</p>	<ul style="list-style-type: none"> <li>• Generating a topic</li> <li>• Narrowing the topic</li> <li>• Writing the outline</li> <li>• Structure of a good paragraph</li> <li>• Characteristics of a good paragraph</li> </ul> <p>Breakdowns</p> <ul style="list-style-type: none"> <li>• Controlling ideas</li> <li>• Topic sentence</li> <li>• Thesis statement in</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss the topic</li> <li>• Use discussion to identify the ways of narrowing the topic</li> <li>• Discuss outlining of the topic</li> <li>• Demonstrate how paragraphing is structured</li> <li>• Ask students to write a paragraph</li> <li>• Identify the components/parts of a paragraph</li> <li>• Assess the quality of a paragraph</li> </ul>

			<ul style="list-style-type: none"> <li>• The introductory paragraph</li> <li>• The Body paragraph</li> <li>• The concluding paragraph</li> <li>• Descriptive</li> <li>• Narrative</li> <li>• Expository</li> <li>• Argumentative</li> <li>• Formal Letters</li> </ul> <p>Semi-Formal/ Informal letters</p>	<p>based on paragraph structure</p> <ul style="list-style-type: none"> <li>• Identify features of a descriptive essay</li> <li>• Identify features of a narrative essay</li> <li>• Identify features of an Expository essay</li> <li>• Identify features of an Argumentative essay</li> <li>• Identify features of all types of letter writing.</li> <li>• Try their hands at each essay type</li> </ul>
Course Assessment Component	<p><b>Component 1:</b> Formative Assessment (Quizzes)  Summary of Assessment Method  Quizzes: Class assessment would be based on quizzes. There will be quizzed on outlining and paragraphing.  <b>Weighting 20%.</b>  Assesses learning outcome: CLO 1</p>			
	<p><b>Component 2:</b> Formative Assessment (Individual assignments and group presentations)  Summary of Assessment Method  Class Participation: Students must attend all lectures and must be punctual too. They are supposed to participate actively in class discussions and assignments.  Assignment: The assignment will assess the problem solving skills and student teacher ability to identify the principles, techniques and processes in essay writing.  <b>Weighting 20%</b>  <b>Total Formative Assessment 40%</b></p>			

	Assess learning outcomes: CLO 2 and 3
	<p><b>Component 3: Summative Assessment</b> (End of Semester Examinations)</p> <p>Summary of Assessment methods: An end of semester that encapsulates course learning outcomes (CLOs) 1 – 4, and make use a combination of the formative assessment methods in component one and two.</p> <p>Demonstration: Problem solving, critical thinking and feedback.</p> <p>Weighting 60%</p> <p>Assesses learning outcomes: CLO 1,2,3 and 4</p>
Instructional Resources	<ol style="list-style-type: none"> <li>4. Language Laboratory</li> <li>5. Sound recorder</li> <li>6. LCD projector</li> <li>7. Internet resources</li> </ol>
Required Text (core) Additional Reading Lists	<p>Adams, G. R. et al (1985): <i>Understanding Research Methods</i>, New York: Longman.</p> <p>Amua-Sekyi, E. T. (1997). Reading and Comprehension in Ghanaian Secondary Schools: <i>A Review In Teaching English in Ghana</i>. A Handbook for Teachers, Kropp Dakubu M. E. (ed). Accra: SEDCO Enterprise.</p> <p>Babbie, E. R. (1973): <i>Survey Research Methods</i>, CA Wadsworth, Belmont.</p> <p>Bell, C. et al (1984): <i>Social Researching</i>. London: Routledge and Kegan Paul.</p> <p>Berry J. (ND): <i>The Pronunciation of Ewe</i>. Cambridge: Linguaphone House University of London.</p> <p>Best J. et al (1989): <i>Research In Education</i>, 6<sup>th</sup> Edition, Englewood Cliffs: Prentice-Hall, Inc.</p> <p>Busceni, S. V. (1999). <i>A Reader for Developing Writers</i>. U. S. A: McGraw Hill Companies.</p> <p>Chesla, E. L. (2006). <i>Write Better Essays in Just 20 Minutes a Day</i> 2<sup>nd</sup> edition. New York: Learning Express, LLC.</p> <p>Darwish, H., Mohammed, A. A., Enani, M. M., (nd). <i>A First Course In Essay Writing</i>. Cairo: Department of English, Faculty of Arts – Cairo University</p> <p>Duigu, Gabi (2002). <i>Essay Writing For English Tests</i>. Australia: Academic English Press.</p> <p>Gogovi, G. A. K., Gborsong, P. A. , Yankah, V. K., Essel, S. K., (nd). <i>Communicative Skills-Post Diploma in Basic Education Course Book for Continuing Education</i>, University of Cape Coast.</p> <p>Olson, L. (2014). <i>On-Screen Proofreading: A HandBook for Editors of Academic and Scientific Articles</i>. Academia.</p> <p>Opoku-Agyemang, N. A. J. (1998). <i>A Handbook for Writing Skills</i>. Ghana Universities Press.</p> <p>Warriner, E. J. Whitten, E. M., Griffith, F. (1977). <i>English Grammar and Composition</i>. U. S. A: Harcourt Brace Jovanoch, Inc.</p>

## SOCIAL STUDIES AS AN INTEGRATED SUBJECT

### CONTEXT

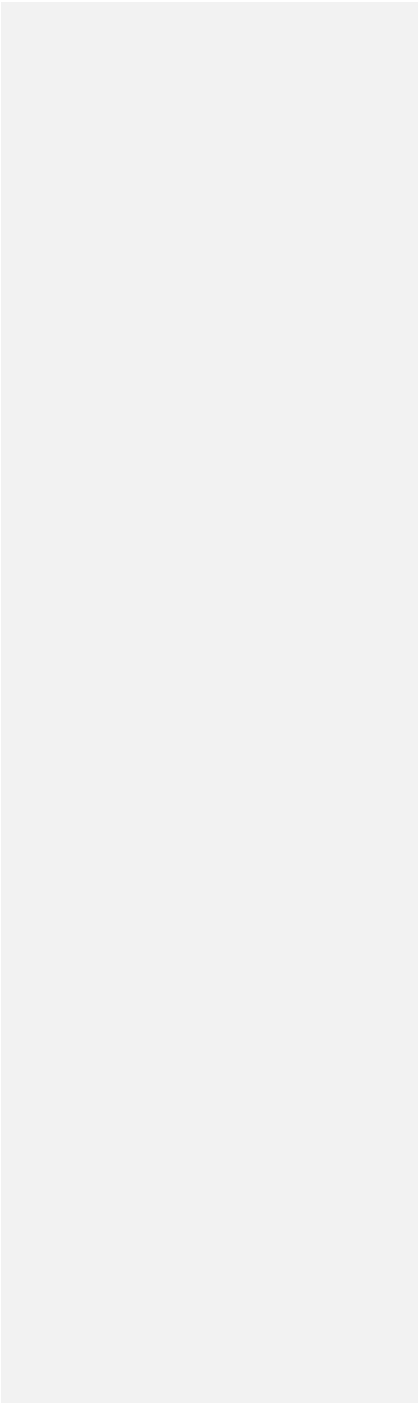
This programme is developed to train teachers who could teach students to appreciate and solve the emerging environmental and social issues that negatively affect our communities. These issues are grounded within the social, economic and political spheres. Many of these issues are as a result of certain misconception and attitudes that negatively affect our communities. This programme is, therefore, design to equip teacher-trainees with the appropriate knowledge, skills and values to enable them to assist learners to live well as responsible citizens who have adequate knowledge on the social, economic and political issues in Ghana.

<b>Course Title</b>	<b>Social Studies as an Integrated Subject</b>						
<b>Course Code</b>	EBS 228	Course Level:	<b>200</b>	Credit Value:	<b>2</b>	Semester	<b>1</b>
<b>Pre-requisite</b>	Successful completion of introduction to social studies						
<b>Course Delivery Modes</b>	<b>Face -to -face</b> <sup>1*</sup>	<b>Practical Activity</b> <sup>2</sup>	<b>Work-Based Learning</b> <sup>3</sup>	<b>Seminars</b> <sup>4</sup>	<b>Independent Study</b> <sup>5*</sup>	<b>e-learning opportunities</b> <sup>6</sup>	<b>Practicum</b> <sup>7</sup>
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	This course seeks to introduce students to the foundation courses of social studies with the view of integrating them to become a subject of its own. In particular ideas generalizations theories and principles from the foundation courses such a geography, history, economic, sociology, political science/government, civics will be used to form the bases of integration. The various forms of integration such as interdisciplinary, multidisciplinary and trans-disciplinary will be explained. The theories that underpin the various forms of integration will be captured in the course ( <b>NTECF and NTS p. 13</b> ).						
<b>Course Learning Outcomes<sup>8</sup>: including INDICATORS for each learning</b>	<b>Outcomes:</b>			<b>Indicators:</b>			
	1. Explore the various foundation courses of social studies			1. Explain the various foundation courses of social studies			
	2. Describe how ideas, generalizations and theories in the foundation courses can be integrated as a subject of its own			2. Describe how ideas, generalizations and theories in the foundation courses can be integrated as a subject of its own			
	3. Explain the theoretical basis of integration in social studies			3. Explain the theoretical basis of integration in social studies			
4. Solve problems through the use of integration from the			4. Solve problems through the use of integration from the				

<b>outcome</b>	foundation courses			foundation courses
	5. Describe phenomena using the integrated approach.			5. Describe phenomena using the integrated approach.
<b>Course Content</b>	<b>Units</b>	<b>Topics:</b>	<b>Sub-topics (if any):</b>	<b>Teaching and learning activities to achieve learning outcomes</b>
	1.	<b>FOUNDATION COURSES IN SOCIAL STUDIES</b>	<ol style="list-style-type: none"> <li>1. The place of geographical values, ideas, theories, generalization in social studies</li> <li>2. The place of economic values, ideas, theories and generalizations. in social studies</li> <li>3. The place of sociological values, ideas, theories and generalizations in social studies</li> <li>4. The place of historical values, ideas, theories and generalizations in social studies</li> <li>5. The place of anthropological values, ideas, theories and generalization in social studies</li> <li>6. The place of civics in social studies</li> </ol>	<ol style="list-style-type: none"> <li>1. Guide students to explain geographical values, ideas, theories using their immediate surroundings</li> <li>2. Students are to visit market centres to observe how market forces play out to form concepts, ideas, theories and generalization in Social Studies</li> <li>3. Students are to role play the activities family members exhibit at home for socialization purposes</li> <li>4. Use stories of past events that are of significance to human beings, citing contributions they have made towards the development of nations over the years</li> <li>5. Students will made to discuss the civic responsibilities and rights at home and how that can be used to explain civic issues in Social Studies</li> </ol>
	2.	<b>APPROACHES TO INTEGRATION</b>	<ol style="list-style-type: none"> <li>1. Multidisciplinary integration</li> <li>2. Interdisciplinary integration</li> <li>3. Trans-disciplinary integration</li> </ol>	<ol style="list-style-type: none"> <li>1. Use the pounding of fufu out of cassava and plantain to explain integration.</li> <li>2. Students can also use concrete in the form of cement, stones, sand to explain integration</li> </ol>
	3.	<b>THEORETICAL BASIS FOR</b>	<ol style="list-style-type: none"> <li>1. Origin of Gestalt Psychology</li> <li>2. The theory of gestalt</li> </ol>	Use of the forest to explain how each tree stands on its own when you enter the forest yet when you are outside the forest the trees seem to be one.

		<b>INTEGRATION</b>	psychology 3. Application of gestalt psychology in social studies	
	4.	<b>INTEGRATING 21 CENTURY SKILLS IN SOCIAL STUDIES</b>	1. Critical thinking 2. Self-direction 3. Communication 4. Media and technology skills 5. Life and career skills	Students will be given questions where they will be made to come out with informed decision their own thinking.
<b>Course Assessment Components<sup>9</sup>: (Educative assessment of, for and as learning)</b>	<b>Component 1:</b> Formative assessment Summary of Assessment Method: Quizzes and assignment Weighting: 20% Assesses Learning Outcomes: CLO 1, and 2 (units 1 - 2)			
<b>Component 2</b>	<b>Component 2:</b> Formative assessment Summary of Assessment Method: Quizzes and assignment Weighting: 20% Assesses Learning Outcomes: CLO 3 and 4 (units 3 - 4)			
<b>Component 3</b>	<b>Component 3:</b> Summative assessment Summary of Assessment Method: End of semester examination Weighting: 60% Assesses Learning Outcomes: CLO 1, 2, 3, and 4 (units 1 - 4)			
Instructional Resources	Textbook, syllabus, teacher's guide, resource person			
Required Text (core)	Makinde, M. A. (1979). <i>Integrated social studies: a handbook of social studies for teachers</i> . Oxford: Oxford University Press.			
Additional Reading List <sup>10</sup>	Fadееiye, J. O. (2005). <i>A social studies textbook for colleges and univiversities part 2</i> . Ibadam: Akin-Johnson Press. And Publishers. Chernus, K. & Fowler, D. (2010). <i>Integrating curriculum: Lessons for adult education from career and technical education</i> . National Institute for Literacy. Washinton DC			

Course writing specification





## BIBLICAL STUDIES

### CONTEXT

Ghana is a pluralistic nation that allows people with different worldviews to co-exist and contribute towards nation building. There are many religions that are practiced in Ghana. However, the three major ones are Christianity, Islam and African Traditional Religion. The introduction of Biblical Studies in the basic schools will promote religious tolerance among people of other faiths. This will help to erase certain misconceptions that non-practitioners of Christianity will have about that religion, so as to create social harmony

<b>Course Title</b>	<b>Biblical Studies</b>						
<b>Course Code</b>	<b>EBS 202</b>	<b>Course Level:</b>	<b>200</b>	<b>Credit Value:</b>	<b>2</b>	<b>Semester</b>	<b>1</b>
<b>Pre-requisite</b>	Student-teachers must have exposure to the three major religions in Ghana, namely Christianity, Islam and African Traditional Religion either through study or practice.						
<b>Course Delivery Modes</b>	<b>Face -to - face</b>	<b>Practical Activity</b> [x]	<b>Work-Based Learning</b>	<b>Group Discussion</b> [x]	<b>Independent Study</b> [x]	<b>e-learning opportunities</b>	<b>Practicum</b>
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	This course is designed to equip student-teachers with basic content knowledge in Biblical Studies. This will enable them to teach Biblical topics in the RME Syllabus effectively. It examines the major characteristics of religion and their socio-cultural implications.						

<b>Course Learning Outcomes: including INDICATORS for each learning outcome</b>	<b>Outcomes</b>	<b>Indicators</b>
	<ol style="list-style-type: none"> <li>1. Demonstrate knowledge and understanding of the history of Christianity in Ghana. (NTS 2a)</li> <li>2. Demonstrate knowledge and understanding of basic Christian doctrines. NTS 2a)</li> <li>3. Demonstrate knowledge and understanding of basic Christian religious practices. (NTS 2a)</li> <li>4. Demonstrate knowledge and understanding of basic Christian moral values and their influence on society. (NTS 2a)</li> <li>5. Demonstrate knowledge and understanding of the operations of Christian church groups and para-church groups and their influence on society. (NTS 2c)</li> <li>6. develop the essential skills required for integrating ICT into the teaching of RME. (NTS 3j)</li> </ol>	<ol style="list-style-type: none"> <li>1.1 Explore the history of Christianity in Ghana and examine the role of the missionaries.</li>   <li>2.1 Develop content and pedagogical knowledge in basic Christian doctrines.</li>   <li>3.1 Develop content and pedagogical knowledge in basic Christian religious practices.</li>   <li>4.1 Develop content and pedagogical knowledge in basic Christian moral values.</li> <li>4.2 Develop religious tolerance by encouraging group work in class.</li>   <li>5.1 Develop knowledge and understanding of the organizational structure of Christian church groups.</li> <li>5.2</li>   <li>6.1 Demonstrate integration of the use of ICT in the teaching of religion.</li> </ol>

Course Content	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	1	<b>History of Christianity</b>	<ul style="list-style-type: none"> <li>• Origin of Christianity in Palestine</li> <li>• The spread of Christianity to the Roman Empire</li> <li>• External difficulties like persecutions by the state, and internal challenges like doctrinal and theological differences</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Discussion:</b> Tutor engages student-teachers in a discussion on the history of Christianity in Ghana</li> <li>• <b>Tutorials:</b> Tutor leads students-teachers in tutorials to explain the origin of Christianity in Palestine</li> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and give them specific tasks</li> <li>• <b>Films and Documentary:</b> Tutor shows films and documentaries about the religious and social life of the Palestinians, to be followed by a discussion.</li> <li>• <b>Group Discussion:</b> Tutor puts learners in groups to discuss the origin and spread of Christianity.</li> </ul>
	2	<b>Background to the Bible</b>	<p><b>Old Testament Books</b></p> <ul style="list-style-type: none"> <li>• The Pentateuch</li> <li>• The Poetic Books</li> <li>• The Historical Books</li> <li>• Major Prophets</li> <li>• Minor Prophets</li> </ul> <p><b>New Testament Books</b></p> <ul style="list-style-type: none"> <li>• The Gospel</li> <li>• The Early Church</li> <li>• The Letters of Paul</li> <li>• Other Letters</li> <li>• A Prophetic Book</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Discussion:</b> Tutor engages student-teachers in a discussion on the books of the Bible.</li> <li>• <b>Tutorials:</b> Tutor leads students-teachers in tutorials to explain the composition of the Bible.</li> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and give them specific tasks</li> <li>• <b>Brainstorming:</b> Student-teachers brainstorm on the differences between the Old Testament and the New Testament books.</li> </ul>

	3	<b>Basic Christian Doctrine</b>	<ul style="list-style-type: none"> <li>• Triune God</li> <li>• Jesus Christ</li> <li>• Virgin Birth</li> <li>• Holy Spirit</li> <li>• Crucifixion of Christ</li> <li>• Resurrection</li> <li>• Judgement Day</li> <li>• Salvation by grace</li> <li>• Holy Bible</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Discussion:</b> Tutor engages student-teachers in a discussion on the basic Christian doctrines.</li> <li>• <b>Tutorials:</b> Tutor leads students-teachers in tutorials to explain the various Christian doctrines to students-teachers.</li> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and give them specific tasks</li> <li>• <b>Power Point Presentation:</b> Tutor gives Power Point presentation of the topics.</li> </ul>
	4	<b>Basic Christian Practices</b>	<ul style="list-style-type: none"> <li>• Worship</li> <li>• Prayer</li> <li>• Baptism</li> <li>• Confirmation</li> <li>• Eucharist</li> <li>• Festivals</li> <li>• Offering</li> <li>• Rites of Passage</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Discussion:</b> Tutor engages student-teachers in a discussion on the various Christian practices.</li> <li>• <b>Tutorials:</b> Tutor leads students-teachers in tutorials to explain the meaning of the basic Christian practices.</li> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and gives them specific tasks to perform.</li> <li>• <b>Brainstorming:</b> Student-teachers brainstorm on the differences among the various practices from one church group to the other.</li> </ul>
	5	<b>Christian Values</b>	<ul style="list-style-type: none"> <li>• Holiness</li> <li>• Hospitality</li> <li>• Peace</li> <li>• Love</li> <li>• Truthfulness</li> <li>• Loyalty</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Discussion:</b> Tutor engages student-teachers in a discussion on the various Christian values.</li> <li>• <b>Tutorials:</b> Tutor leads students-teachers in tutorials to explain the meaning of the Christian moral values.</li> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and gives them specific tasks to perform.</li> </ul>

			<ul style="list-style-type: none"> <li>• Self-control</li> <li>• Godliness</li> <li>• Commitment</li> <li>• Gratitude</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Brainstorming:</b> Student-teachers brainstorm on the values which are promoted in their religious groups.</li> </ul>
	6	<b>Christian Church Groups/Denominations</b>	<ul style="list-style-type: none"> <li>• Roman Catholic Church</li> <li>• Protestants</li> <li>• Pentecostals</li> <li>• Charismatics</li> <li>• African Initiated Churches</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Discussion:</b> Tutor engages student-teachers in a discussion on the various Christian church groups.</li> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and gives them specific tasks to perform.</li> <li>• <b>Brainstorming:</b> Student-teachers brainstorm on the differences among the various denominations.</li> </ul>
	7	<b>Church Organizations and Church Groups</b>	<ul style="list-style-type: none"> <li>• Catholic Bishop's Conference</li> <li>• Christian Council of Ghana</li> <li>• Ghana Pentecostals Council</li> <li>• Ghana Charismatic Bishops' Conference</li> <li>• Bible Society of Ghana</li> <li>• Scripture Union, Ghana</li> <li>• Ghana Fellowship of Evangelical Students (GHAFES)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Discussion:</b> Tutor engages student-teachers in a discussion on the various Christian para-church groups.</li> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and gives them specific tasks to perform.</li> <li>• <b>Brainstorming:</b> Student-teachers brainstorm on the leadership and operations of the various para-church groups.</li> </ul>
<b>Course</b>	<b>Component 1: Formative Assessment (Individual and Group Presentation)</b>			

<p><b>Assessment Components : (Educative assessment of, for and as learning)</b></p>	<p>Summary of Assessment Method: Individual and Group Presentations to assess student-teachers' Subject and Curriculum Knowledge (SCK)  Weighting: 30%  Assesses Learning Outcomes: CLO 1, CLO 2, CLO 3, CLO 4, CLO 5, CLO 6</p> <p><b>Component 2:</b> Formative Assessment (Quizzes and Assignments)  Summary of Assessment Method: Quizzes and Assignments to assess student-teachers' Pedagogical Knowledge (PK)  Weighting: 30%  Assesses Learning Outcomes: CLO 1, CLO 2, CLO 3, CLO 4, CLO 5, CLO 6</p> <p><b>Component 3:</b> Summative Assessment (End of Semester Examination)  Summary of Assessment Method: End of Semester Examination is conducted to assess student-teachers' learning outcomes in the development of critical thinking and creativity skills. Assessment will be based on student-teachers' Subject and Curriculum Knowledge (SCK), Pedagogical Knowledge (PK) and Professional Practice (PP).  Weighting: 40%  Assesses Learning Outcomes: CLO 1, CLO 2, CLO 3, CLO 4, CLO 5, CLO 6</p>
<p><b>Instructional Resources</b></p>	<ul style="list-style-type: none"> <li>• Textbooks</li> <li>• Journal articles</li> <li>• Resource Persons</li> <li>• Audio-visual materials</li> <li>• Power Point Presentation</li> </ul>
<p><b>Required Text (core)</b></p>	<p>Agbavor, A.K. W. (2002). <i>Religious and Moral Education for schools and colleges</i>. Accra: Lestek Limited.</p> <p>Asare-Danso, S. (2012). Religious Education in a democratic state: The Ghanaian experience. In P. Gotke &amp; J. Nissen (Eds.). <i>Religious education between Formation, Knowledge and Control</i>, (pp. 59-65). Aarhus: Aarhus University, Denmark.</p> <p>Asare-Danso, S., Annobil, C. N., Owusu, A. &amp; Agyemang, M. (2014). <i>Religious and Moral Education for Colleges of Education</i>. Kumasi: Jerusalem Press.</p> <p>Asare-Danso, S. &amp; Annobil, C. N. (2016). <i>Religious and Moral Education in Early Childhood Education</i>. Winneba Institute for Educational Development and Extension, University of Education, Winneba.</p>

	Awuah, G. & Owusu, A. (2000). <i>Study of content and methodology in Religious and Moral Education</i> . Kumasi: U Publishing House.
	Ministry of Education (2008). <i>Religious and Moral Education syllabus for primary school</i> .
	Ministry of Education (2008). <i>Religious and Moral Education syllabus for junior high school</i> .

## SOUND AND MOVEMENT NOTATION

### CONTEXT

The Ghanaian child is born into a society in which the Performing Arts play a very pivotal role. Apart from entertainment the arts serve as a social barometer measuring the pressures exerted by the everyday lived experiences of Ghanaians. The Performing Arts is the total expression of Ghana's culture. From infancy the Ghanaian child is exposed to music, dance and drama as social phenomena. A study of the Performing Arts will expose students to the uses and functions of the Performing Arts in the social, economic, political and religious lives of Ghanaians. It will enable students to explore the meanings of music, dance and drama in everyday life and their roles in the formation of social identities. Furthermore, it will help students to understand the influences of the Performing Arts on society as well as the influences of society in the changing trends of the Performing Arts. Apart from enabling students to develop a *feelingful reaction* to the Performing Arts it enhances and develops creativity among students and introduces them to career opportunities in music, dance and drama. The role of the Performing Arts in the development of the cognitive, emotional and psychomotor domains has received universal recognition. A study of Performing Arts by trainee students will equip them with skills, content and knowledge to impart same to pupils in the basic schools. It will also prepare them for careers and further studies in the Performing Arts.

Course Title	Sound and Movement Notation						
Course Code: EBS 229	Course Level: 200		Credit Value: 2		Semester: 1		
Pre-requisite	Should have studied 'The Performing Arts and Society' as well as 'Nature of the Performing Arts'						
Course Delivery Modes	Face - to - face <sup>1</sup> √	Practical Activity <sup>2</sup> √	Work-Based Learning <sup>3</sup> √	Seminars <sup>4</sup> √	Independent Study <sup>5</sup> √	e-learning opportunities <sup>6</sup> √	Practicum <sup>7</sup> √
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be	Studying music, like language, proceeds from the skills of listening, speaking (performing), reading and writing. In the previous music courses (listed under the 'pre-requisite'), students were predominantly exposed to the first two skills (listening/observing and performing). The goal of this course is to build up on these skills and highlight the next two higher level skills of learning to read and write music. It ensures continuity and consistency in the acquisition of musical skills which are necessary for the teacher to be able to handle the teaching of music effectively. Specifically, this course						

<b>addressed)</b>	<p>equips students with the knowledge and skills for reading and writing simple melodies and movement patterns. This implies that the inextricable relationship between music and movement will be discussed. The course further equips students with skills to transpose melodies at given intervals above or below the original melodies. The course, in addition to covering the basics of standard music notation, also covers the basics of the Laban notational system and includes the notation of leg movements.</p> <p>The course builds the pillars of Literacy, Skill, Knowledge and Content in addition to addressing the following among others: <b>NTCEF, NTS 1b, 1e, 1f, 2b, c, d, 3a, e, 3i</b></p>			
<b>Course Learning Outcomes<sup>8</sup>: including INDICATORS for each learning outcome</b>	<b>Outcomes</b> By the end of the course, the student will be able to:		<b>Indicators</b>	
	1. Develop skills of discriminatory listening and observing (NTS 1b, 2c, d, e, 3e, k)		1. Demonstrate the ability to focus on particular aspects/elements of music and dance	
	2. Read and sight sing or play simple melodies in given keys (NTS 1b, 2a, b, d)		2. Identify pitches in a notated melody and sing or play them out on a melodic/harmonic instrument	
	3. Create and write simple melodies (NTS 1b, 2a, b, d)		3. Represent their own songs or simple familiar tunes in writing using standard music notation	
	4. Describe the relationship between sound/music and movement (NTS 1b, 2a, b, d)		4. Explain (at least orally) the intricate relationship between sound/music and movement	
	5. Interpret simple leg movement patterns (NTS 1b, 2a, b, d, 3a, c; NTCEF pages 16 and 21)		5. Demonstrate simple leg movement patterns written with Labanotation	
	6. Create and write simple movement patterns using Labanotation (NTS 1b, 2a, b, d, 3a, c)		6. Show the ability to create and write simple movement patterns using Labanotation	
<b>Course Content</b>	<b>Units</b>	<b>Topics:</b>	<b>Sub-topics (if any):</b>	<b>Teaching and learning activities to achieve learning outcomes</b>
	1	Pitch and pitch notation	Construction of minor scales A, E, B, D, G	Students listen to and perform music in the minor mode. Teacher leads students to aurally differentiate between songs in the major and minor mode. Teacher discusses the minor scale (melodic and harmonic) with students. Teacher guides students to construct the given minor scales.



	2	Intervals	Melodic and harmonic intervals	Teacher discusses melodic and harmonic intervals with students and guides to aurally and visually distinguish between intervals.
	3	Composition of melodies	Composition based on given keys – major and minor	Teacher leads students to create melodies in the given major and minor keys and notate the melodies in staff notation. Students perform the melodies they have composed to the class for listening and discussion.
	4	Sight reading/singing	Sight reading/singing of melodies in given keys	Teacher leads students to sight read/sing melodies in the major and minor keys they have treated.
	5	Sound/Music and movement	Sound and movement exploration	Teacher leads students to discuss the close connection between sound/music and movement and why they are often discussed together. (E.g. The production of sound on any musical instrument requires movement; or the local names of our indigenous ensembles do not differentiate between music and dance – the word ‘Kpanlogo’ refers to both the music and the sound etc. Also, music elicits movement. Even when people are not seen dancing, the parts of the brain responsible for movement is highly activated when music is being played.
	6	Movement notation	Composition of leg movement patterns	Teacher discusses with students the Labanotation symbols for directions and levels and leads students to create short and simple leg movement patterns using the directions and levels. Students work in groups to compose short movement patterns and present their works for performance, discussion and assessment.
	7	Performance Studies	Ensemble and solo instrument study a) Ensemble work - choral/instrumental b) Solo work – voice/atenteben/drums/trumpet/ goje/xylophone/piano/etc.	Students under teacher’s guidance continue to study pieces in in their choral and instrumental ensembles as well as pieces for solo work on their chosen music instruments.

<p><b>Course Assessment Components<sup>9</sup> :</b> (Educative assessment of, for and as learning)</p>	<p>Assessment is made up of two major sections: Formative (40%) and Summative (60%). The formative assessment is further divided into two components with equal weightings: Aural/Oral and Theory.</p> <p><b>Component 1: Aural/Oral (Exercises, Quizzes) – 20%</b>  a) Students tell whether a piece played to them is in the minor or major mode.  b) Students to construct the given minor scales.  c) Students identify intervals played to them.  d) Students perform given intervals on music instruments.  (CLO 1,2,3 &amp;4: NTS 1b, e, f, g, 2c, d, e)</p> <p><b>Component 2: Theory (Exercises, Quizzes, Assignments) – 20%</b>  a) Students present their creative works to the class for discussion and assessment (CLO 4 &amp; 5: NTS 2c, d, 3k)  b) Students sight read/sing given melodies.  c) Students compose movement patterns using Labanotation.  d) Students perform their creative work.  (CLO 5 &amp;6: NTS 1b, e, f, g, 2c, d, e)</p> <p><b>Component 3: Summative Assessment – 60%</b>  This will be made up of 20 objective questions (20 marks) and two essays (20 marks each) set by the teacher to cover all aspects of the CLO.  NTS 1b, 1e, 1f, 2c, 3e, 3i; NTCEF pages 16, 21, 38 and 41</p>
<p><b>Instructional Resources</b></p>	<p>Required reading text, pre-recorded audio/video of Ghanaian musical types (indigenous, popular and art/classical), Laptop or playing device, pictures/paintings of standard music notation forms and basic Labanotation forms. Musical instruments such as at1nt1b1n, drums, trumpet, goje, xylophone, piano, guitar</p>
<p><b>Required Text (core)</b></p>	<p>Adum-Attah, K. and Arthur K.K. (2001). <i>Music and Dance for the Classroom Teacher</i>. Accra: Curriculum Research and Development Division (GES).  Amuah, I.R., Adum-Attah, K., and Arthur, K. (2005). <i>Music and dance for colleges of education: Principles and methods</i>. Kumasi: Yaci Publications.</p>
<p><b>Additional Reading List<sup>10</sup></b></p>	<p>Agordoh, A.A. (1994). <i>Studies in African Music</i>. Accra: St. Anthony Press.  Hutchinson, Ann (1970). <i>Labanotation</i>. New York: Theatre Arts Books.  Manford, R., Wilson, C.B. and Flolu, J.E. (1993) <i>Music for Senior Secondary Schools</i>. Bombay: H. Gangaram &amp; Sons.  Mensah, I.T. (1996). <i>Understanding Music</i>. Vol. 1, 2, 3 4. Otuam: Otuamic Publishers.</p>

## THE SENTENCE AND ITS PARTS

<b>Course Title</b>	<b>The Sentence and its Parts</b>						
<b>Course Code</b>	<b>EBS</b>	<b>Course Code</b>	<b>EBS</b>	<b>Course Code</b>	<b>EBS</b>	<b>Course Code</b>	<b>EBS</b>
<b>Pre-requisite</b>	Students have knowledge of English Language studies						
<b>Course Delivery Modes</b>	<b>Face -to -face<sup>1</sup></b> ✓	<b>Course Delivery Modes</b>	<b>Face -to -face<sup>1</sup></b> ✓	<b>Course Delivery Modes</b>	<b>Face -to -face<sup>1</sup></b> ✓	<b>Course Delivery Modes</b>	<b>Face -to -face<sup>1</sup></b> ✓
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	<p>This course aims at introducing students to the sentence, considering the classification of the sentence in terms of structure and function. This course will expose students to the structure of the simple sentence, the compound sentence as well as the complex sentence. The course will again expose the students to the communicative/traditional function of the sentence, helping students to use sentences to perform different communicative functions. This course will again introduce students to the phrase which forms part of the sentence. Students will have the advantage of getting to know the different types of phrases and the functions they perform. The knowledge gained in this course will help students to acquire the skills to write better essays and to teach their pupils at the basic level better. Student-teachers, who enroll on this course, will have the opportunity of taking part in non-participant observations in primary and junior high classrooms, to observe how teachers teach these concepts to pupils, so as to identify challenges teachers encounter in teaching grammar. Information gathered will be useful to students who intend to conduct action research later. The mode of delivery for this course will be discussions, presentations, group work and individual work. Students will be required to bring on board their personal experiences for discussions as well. Assessment will be done through quizzes, report writing, assignments and examinations. The course is in line with NTS 1a, 1b, 2c, NTECF bullets 1,3,5, and 7; p. 25.</p>						
<b>Course Learning Outcomes<sup>8</sup>: including INDICATORS for each learning outcome</b>	Outcomes				Indicators		
	By the end of the course, the student will be able to:						
	1. identify phrases is in context (NTS 2c (NTECF bullet 3, 5,7, p. 25)				1.1 explain the phrase using a context. 1.2 2.1 discuss the types of phrases 1.3 2.2 identify phrases in context 1.4 Discuss the functions of phrases		
2. define a sentence. (NTS 1a, b, NTECF bullets 1, and 7, p. 25)				2.1 define a sentence 2.2 identify the elements of the sentence			
3. discuss the classification of the sentence in terms of structure. (NTS 2c, NTECF bullet 12, p. 25)				3.1 classify a sentence in terms of structure			

	4. discuss the classification of the sentence in terms of function. (NTS 2c, NTECF bullet 12, p. 25)			4.1 discuss the functions of the sentence
<b>Course Content</b>	<b>Units</b>	<b>Topics:</b>	<b>Sub-topics (if any):</b>	<b>Teaching and learning activities to achieve learning outcomes</b>
	<b>1</b>	The Phrase	<ol style="list-style-type: none"> <li>1. Definition of the phrase</li> <li>2. Types of phrases <ul style="list-style-type: none"> <li>• The Noun Phrase</li> <li>• The Verb Phrase</li> <li>• Adjective phrase</li> <li>• The Adverb phrase</li> </ul> </li> </ol>	<p>Using various contexts, let students come up with their definition of the phrase.</p> <p>Discuss the noun phrase  Discuss the structure of the noun phrase  Discuss the functions of the noun phrase  Identify noun phrases in context</p> <p>Let students brainstorm on the verb phrase  Discuss the structure of the verb phrase  Let students identify the verb phrase in context.</p> <p>Lead students in a discussion of the Adjective phrase  Discuss the structure of the Adjective phrase  Lead students to discuss the functions of the Adjective phrase</p> <p>Let students identify Adjective phrases in context</p> <p>Lead students to discuss the Adverb phrase.  Identify the structure of the Adverb phrase.  Discuss the various Adverb phrases in context (Time, manner, place).</p> <p>Discuss the preposition phrase</p>

			<ul style="list-style-type: none"> <li>• Preposition phrase</li> </ul>	<p>Discuss the structure of the preposition phrase  Lead the students of the functions of the proposition phrase  Identify preposition phrases in context</p>
			<p>1.The simple sentence</p> <p>2.The compound sentence</p> <p>3.The complex sentence</p> <p>4.The communicative function of the sentence</p>	<p>Discuss the elements of the simple sentence dwelling on the number and type of clause(s) within the sentence.  Let students construct various examples of simple sentences</p> <p>Engage students in a discussion of the compound sentence.  Lead students to identify and describe the clauses in given compound sentences and in given passages.  Let students construct their own examples of compound sentences.</p> <p>Lead students in a discussion of the complex sentence  Let students identify and describe the clauses in given complex sentences and in given passages.  Let students construct their own examples of the complex sentences.</p>

		<p>1.The Declarative Sentence</p> <p>2.The Interrogative Sentence</p> <p>3.The Imperative Sentence</p> <p>4.Exclamatory Sentence</p>	<p>Discuss the declarative sentence. Let students identify the features of the declarative sentence.</p> <p>Let students cite various examples of the declarative sentence.</p> <p>Discuss the imperative sentence. Let students identify the features of the imperative sentence.</p> <p>Let students cite various examples of the imperative sentence.</p> <p>Discuss the exclamatory sentence. Let students identify the features of the exclamatory sentence.</p> <p>Let students cite various examples of the exclamatory sentence.</p>
<p><b>Course Assessment Components<sup>9</sup> : (Educative assessment of, for and as learning)</b></p>	<p><b>Component 1: Formative assessment (40%)</b> Summary of assessment methods: Individual assignments- types of phrases (10%); group presentation of observation reports (10 %); and 2 quizzes – Phrases and The communicative function of the sentence (20%) Assessing Learning Outcomes: 1, 2, 3, and 4.</p> <p><b>Component 2: Summative assessment: (60%)</b></p>		

	End of semester examination on units 1 – 2 to develop core skills such as knowledge application and personal development Assessing Learning Outcomes: 1, 2, 3, and 4.
<b>Instructional Resources</b>	Projectors and computers, Audio-visuals and Phones and sample passages.
<b>Required Text (core)</b>	D. (2003). Practical English language teaching. New York: McGraw-Hill.
<b>Additional Reading Lists</b>	Crystal, D. (2000). Cambridge encyclopedia of language. (2nded.). Cambridge: Cambridge University Rozakis, L. E. (2003). Grammar and style. Indiana: Alpha Books. Sakyi-Baidoo, Y. (2005). Effective learning and communication. Accra: Akonta Publications. Takor, D. (1999). Semantics. New Delhi: Bharati Bhawan. Yule, G. (1996). The study of language. (2nded.). Cambridge: CUP.

## DATABASES

### CONTEXT

The emergence of the information age has brought to the fore, the important role that information, knowledge and technology can play in facilitating socio-economic development. The effective use of information and knowledge is becoming the most critical factor for rapid economic growth and wealth creation, and for improving socio-economic well-being. Information and Communication Technology (ICT) should be integrated within all the learning activities of the school across all subjects. Targets for students' use of ICT relate to the usage of various ICT tools, broader issues associated with assessing information using these tools, and other management skills. As ICT is an important element in most subjects, ICT-related skills are assessed through traditional school subjects. The use of ICT in education can play a crucial role in providing new and innovative forms of support to teachers, students, and the learning process more broadly. With globalization, the information revolution, and increasing demands for a highly skilled workforce, nations are increasingly prioritizing education. The potential and promise of ICT use in education is clear: when implemented correctly, software in the classroom, for example, can allow students to learn at their own pace and tablets can help children develop important digital skills and computer know-how that they'll need to succeed in our knowledge-based economy. The programme has been designed to incorporate Digital Competence, which cover basic education. The programme's priority areas have been related to ICT infrastructure, competence development, research and development, digital teaching resources, curricula and working methods.

Course Title	<b>Databases</b>						
Course Code	<b>EBS 285</b>	Course Level	200	Credit value	2	Semester	1
Pre-requisite							
Course Delivery Modes	Face-to-face <input checked="" type="checkbox"/>	Practical Activity <input checked="" type="checkbox"/>	Work-Based Learning <input checked="" type="checkbox"/>	Seminars <input type="checkbox"/>	Independent Study <input type="checkbox"/>	e-learning opportunities <input checked="" type="checkbox"/>	Practicum <input type="checkbox"/>
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	This course focuses on database and database management systems. It covers a traditional file system and the problems associated to it. It also examines the different types of database organization, the operations used as well as data warehouse, data marts and data mining technologies. Information, characteristics of useful information, role and impact of information system. Others include categories of Information System (TPS, MIS, DSS etc.), and System Development and Organizational Change and approaches to system development. Practical work on MS Access. The approaches that would be used in the delivery of this course would prepare trainees to be mindful of gender roles and also address issues relating to equity and inclusivity, by ensuring the learning progress of all children. (NTECF; NTS 2b, 2c, 3a, 3c, 3e-3j, 3p) and Cross-Cutting						
Course Learning Outcomes:	Outcomes				Indicators		



including INDICATORS for Each learning outcome	1. Understand the database management systems and the information needs of a database. NTECF; NTS 2b, 2c, 3a, 3c, 3e-3j, 3p		1. Explain the concept of database management system (DBMS) and its operations. 2. Compare DBMS to the traditional file system. 3. Define the basic database terminologies like primary key, entity, relationships and foreign keys.	
	2. Demonstrate an understanding of Entity Relational model and its applications to organizational data. NTECF; NTS 2b, 2c, 3a, 3c, 3e-3j, 3p		1. Analyze the data and data organization needs of organizations; 2. Apply the Entity-Relationship (E-R) Model for building information systems' data models;	
	3. Demonstrate knowledge and understanding of relational models. NTECF; NTS 2b, 2c, 3a, 3c, 3e-3j, 3p		1. Transform an E-R diagram into a relational model, and use normalization to create a database relational schema; 2. Discuss the physical database design process of producing an efficient and tuned database;	
	4. Design a working database using either SQL or Access NTECF; NTS 2b, 2c, 3a, 3c, 3e-3j, 3p		1. Use SQL for database creation, manipulation, and control; 2. Explain the client/server model, and describe the key components used to implement internet database environments;	
Course Content	Units	Topics	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	Unit 1	Introduction to Database Systems	1. Evolution of file processing systems. 2. Role of databases in organizations. 3. Components of a database environment.	<ul style="list-style-type: none"> <li>• Use of presentation to explain database terminologies.</li> <li>• Class discussion on the role of databases in organizations.</li> <li>• Group Writing Activities on different types of database systems. Encourage females to lead groups to deal gender stereotypes.</li> </ul>

	Unit 2	Data Modelling: The Entity-Relationship Diagram	1. Entity-relationship (E-R) diagram	<ul style="list-style-type: none"> <li>• Discussion of entity relational diagram.</li> <li>• Group students to design ER diagram on card board.</li> <li>• Group students to design ER diagram using a computer software like MS Visio. Encourage females to lead groups to deal gender stereotypes.</li> </ul>
	Unit 3	The Relational Model and Normalization:	1. Relational model 2. Normalization	<ul style="list-style-type: none"> <li>• Use group presentations to explain relational model and its importance.</li> <li>• Group students to convert their ER diagrams in unit 2 into relational models. Encourage females to lead groups to deal gender stereotypes.</li> <li>• Use discussion method to explain normalization.</li> </ul>
	Unit 4	Physical Database Design:		<ul style="list-style-type: none"> <li>• Use problem based learning to explain physical data base.</li> <li>• Design a real life database model.</li> </ul>
	Unit 5	SQL - A Standard Navigation Language for Relational Databases		<ul style="list-style-type: none"> <li>• Whole class activity in a form of problem based learning.</li> <li>• Use SQL to implement the database model in unit 4.</li> </ul>
	Unit 6	Data Quality and Database Administration		<ul style="list-style-type: none"> <li>• Use discussion method to explain data quality in databases.</li> <li>• Brainstorm the duties of database administrator.</li> </ul>
Course Assessment Components:	<b>Component 1: Formative assessment</b> (Weighting=40%):			

(Educative assessment of, for and as learning)	<ul style="list-style-type: none"> <li>▪ Quizzes, and individual assignments= 20%</li> <li>▪ Group assignments and seminar presentations= 20%</li> </ul> <p><b>Core skills to be developed:</b> Interpersonal and presentation skills, intellectual skills, research and organisation and creative skills Assessing learning outcomes: CLO 1-3</p> <p><b>Component 2: Summative assessment:</b> End of semester examination (Weighting-60%):</p> <ul style="list-style-type: none"> <li>▪ Part A: Practical Examination =30</li> <li>▪ Part B: Theoretical Examination=30%</li> </ul> <p>Total marks=100%</p> <p><b>Core skills to be developed:</b> Interpersonal and presentation skills, intellectual skills, research and organisation and creative skills Assessing learning outcomes: CLO 1-4</p>
Instructional Resources	Computer assisted instruction, MS-PowerPoint slides, YouTube videos, Computer with MS-Access
Required Text (core)	Date, C. J. (2003). <i>An introduction to database systems</i> . (8 <sup>th</sup> ed.). Reading MA: Addison Wesley Using Information Technology by Williams, Sawyer and Hutchinson Computer Science by C. S. French.
Additional Reading List	Laudon, K. C. & Laudon, J.P. (2002). <i>Management Information Systems: Managing the digital firm</i> . (7 <sup>th</sup> ed.). Upper Saddle River, New Jersey: Prentice-Hall International, Inc.

## **NATURE OF MATHEMATICS**

### **CONTEXT**

The mathematics curriculum provides student teachers with a background in the theory and application of the content needed to understand the underlying structure and nature of mathematics.

In addition, it exposes student teachers to the content knowledge needed in preparing them sufficiently to teach mathematics beyond what they will be expected to teach at the basic education level.

The demands of rapid change in an information- based society today have influenced mathematics programs in various ways. The skills needed for jobs require thoughtful workers who are oriented to problem solving, irrespective of their gender, cultural and socio- economic backgrounds. By studying mathematics, students are taught to reason, to analyze, to think for themselves, while it imparts confidence in their own reasoning powers, and strengthens their mental faculties. Students need to use rules and thought processes of mathematics along with facts, to develop a reasoning pattern that will translate to their everyday lives, making them better thinkers and problem solvers.

It is important for students to view mathematics as a significant part of our culture, not only for its valuable scientific applications but also for its enrichment of our cultural life.

This mathematics course is, therefore, intended to equip student teachers with the knowledge, skills and values needed to teach mathematics to basic school pupils in everyday life context. Besides, it provides the requisite resource material for preparing student teachers to teach mathematics sufficiently and effectively in our basic schools.

<b>Course Title</b>	<b>NATURE OF MATHEMATICS</b>						
<b>Course Code</b>	<b>EBS 289</b>	<b>Course Level:</b>	<b>200</b>	<b>Credit Value:</b>	<b>2</b>	<b>Semester</b>	<b>1</b>
<b>Pre-requisite</b>	<b>Algebra I, Algebra II, Geometry and Trigonometry, Trigonometry</b>						
<b>Course Delivery Modes</b>	<b>Face -to -face<sup>1</sup></b> ✓	<b>Practical Activity<sup>2</sup></b> ✓	<b>Work-Based Learning<sup>3</sup></b> ✓	<b>Seminars<sup>4</sup></b> ✓	<b>Independent Study<sup>5</sup></b> ✓	<b>e-learning opportunities<sup>6</sup></b> ✓	<b>Practicum<sup>7</sup></b> ✓
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	The objective of this course is to lead students to appreciate the historical development of mathematics from the major older philosophical schools of thought, as well as the basis of classical proofs in mathematics. It will also expose students to Fallibilists and Absolutists views of mathematical knowledge. The course will introduce students to definitions of mathematics, the nature of mathematical knowledge, historical development of some branches of mathematics and the older philosophies of mathematics. Particular philosophies to be covered include the philosophies of Kant, Plato, Aristotle, and Leibnitz. Also included are the Absolutists philosophical schools of thought and the Fallibilists opposed to them, as well as proofs in mathematics. The approaches that would be used in the delivery of this course should prepare trainees to ensure the learning progress of all students by projecting gender roles and issues relating to equity and inclusivity. (NTECF Pillar 1, expectations 2, 3, 5, 6, 7; Pillar 2, Pillar 3; cross-cutting page 39, expectation 1, Core and Transferable skills p.46).						
<b>Course Learning Outcomes<sup>8</sup>: including INDICATORS for each learning outcome</b>	Outcomes By the end of the course, the student will be able to:			Indicators			
	1. demonstrate a sound knowledge of the topics and apply them in real life situations; (NTS 1a, b; 2c)			– explain what mathematics is and its importance as a tool for the sciences and other disciplines; – explain the main features of the development of some branches of mathematics; – Justify the stand that all abstract mathematics has its root in the physical world;			
	2. apply the knowledge acquired to the teaching of mathematics at the basic school level; (NTS 1a, b; 2c)			– relate the philosophies of mathematics to classroom practices.			
<b>Course Content</b>	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve			

				learning outcomes
	1	Definition of mathematics	What is mathematics?, Mathematics and science, Cycle of investigations	Use brainstorming sessions to discuss various definitions of mathematics with students. Encourage students to do independent research on definitions of mathematics Use relevant situations to explain the cycle of investigations in mathematics that teachers must engage their learners in.
	2	Some Mathematics Education Terms	Mathematical Axioms, Conjecture, and Theorems (Binomial, Pythagorean), Mathematical Operations, Mathematical Algorithms (HMMDIA, FOIL, BEDMAS), Paradoxes	Use brainstorming sessions and relevant situations to explain the various mathematics education terminologies such as Axioms, conjectures, theorems (such as Binomial theorem, Pythagorean Theorem), and antinomies (paradoxes) in mathematics (such as Barber's Paradox, Epimenides' Libel, Russell Paradox, Galileo's Paradox, Achilles and the Tortoise, Lazy-bones Paradox, The Law teacher and his graduate).  Provide suitable opportunities for students to explain Mathematical operations such as Addition, Subtraction, Multiplication, Division, Square Roots and Cube Roots). Discuss various Mathematical Algorithms (e.g., HMMDIA, FOIL, BEDMAS),
	3	Historical development of Number and Algebra	Numeration Systems - (Egyptian, Babylonian, Roman, Hindu-Arabic) Basic Properties of Natural Numbers, Figurative numbers,	Engage students in group research to gather information on the ancient numeration systems. Employ presentation strategy to discussion the development of Egyptian, Babylonian, Roman and Hindu-Arabic Numeration Systems.

			Development of Algebra (Egypt and Babylonia, The Greeks, The Hindus and Arabs, Boolean Algebra, Algebraic Equations)	Engage students in practical activities to discuss the basic Properties of Natural Numbers (Odd and Even, Prime and Composite). Discuss the use of the Sieve of Eratosthenes for determining prime numbers and how to apply Prime Factorization in finding Lowest Common Multiple and Highest Common Factors of given set of natural numbers, Involve students in activities to investigate and distinguish among Figurative numbers (Perfect, Abundant, Deficient, Polite, Amicable Numbers) Assign students in groups to research into the Development of Algebra and the roles of the Egyptians and Babylonians, the Greeks, the Hindus and Arabs in its development.
4	Historical development Geometry and logic		Development of Geometry (Euclid's Five Postulates, Critics of Euclidian Geometry, Modern Geometry- Transformation, Congruent and Similar Figures, Development of Logic.	Discuss the historical development of Geometry including Euclid's Five Postulates, Critics of Euclidian Geometry, Modern Geometry Provide opportunities for students to explore properties of transformation of plane shapes including Congruent and Similar Figures, symmetries  Discuss with students the development of Logic including Leibniz, Aristotelian logic, etc
5	Philosophy of Mathematics		Plato, Platonism, Formalism, Intuitionism, Absolutism, Fallibilism, Kant's Philosophy, Aristotle, Leibniz	Use brainstorming to explain the philosophical views of Plato, Kant, Aristotle, Leibniz Discuss formalism, intuitionism, absolutism, and fallibilism
6	Proofs in Mathematics		Definition of Proof, Inductive Reasoning, Proof by	Discuss definition of proof in mathematics Brainstorm with students the major differences

			Mathematical Induction, Deductive Reasoning	between inductive and deductive reasoning. Discuss Peano's postulates and the conditions necessary for proof by Mathematical induction and engage students in activities involving proof by Mathematical induction
<b>Course Assessment Components<sup>9</sup> : (Educative assessment of, for and as learning)</b>	Component 1: Formative Assessment (Individual and Group presentations) <b>Summary of Assessment Method:</b> Critical Thinking, problem solving skills, creative and innovative skills, life-long learning/ personal skills, collaborative/ social skills, communication skills, literacy and numeracy skills, leadership skills, digital literacy/ICT skills (NTECF p. 45) <ul style="list-style-type: none"> <li>• Presentations</li> </ul> Weighting (10%) Assesses Learning Outcomes: CLO 1 (Units 1, 3 and 6)			
	Component 2: Formative Assessment <b>Summary of Assessment Method:</b> Critical Thinking, problem solving skills, creative and innovative skills (NTECF p. 45) <ul style="list-style-type: none"> <li>• Assignments</li> <li>• Class exercises</li> <li>• Quizzes</li> </ul> Weighting (30%) Assesses Learning Outcomes: CLO 1 & 2 (Units 1, 2, 3 and 4)			
	Component 3: Summative Assessment <b>Summary of Assessment Method:</b> End of Semester Examinations Unit 1 – 5 (Core skills to be developed: Critical Thinking, problem solving skills, creative and innovative skills (NTECF p. 45)) Weighting (60%) Assesses Learning Outcomes: CLO 1 & 2 (Units 1, 2, 3, 4, 5 and 6)			
<b>Required Text (core)</b>	Sokpe, B.Y. & Osiakwan, J. K. (2015). <i>Nature of mathematical</i> . Cape Coast: University Press			
<b>Additional Reading List<sup>10</sup></b>	Ernest, P. (1991). <i>The philosophy of mathematics education</i> . UK, Falmer Press. Skemp, R. R. (1987). <i>The psychology of learning mathematics</i> . Hillsdale, NJ: Lawrence Erlbaum Associate Inc. Publishers. Sokpe, B.Y. & Osiakwan, J. K. (2016). <i>Mathematical investigations</i> . Cape Coast: University Press Van de Walle, J. A. (2016). <i>Elementary and middle school mathematics Teaching developmentally</i> (9 <sup>th</sup> ed.).			



	New York: Pearson/Longman.
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## GENERAL PHYSICS THEORY II

### CONTEXT

Physics has often been viewed as a difficult subject, and this is an attitude that is engendered by teachers who were not well taught themselves and who are only teaching physics because there is no-one else to do it. The subject is therefore often taught without enthusiasm, together with “dry” content. The curriculum itself doesn’t help as it is often not well thought through and much of what we teach in high school is foundational for higher level courses. This means that the more interesting material is often deemed to be too conceptually difficult, especially by those whose main subject interest is chemistry or biology. There are many students in our classes who are doing physics as a means to get into engineering or medical courses. This may be one of the reasons why there is a lack of students studying for science degrees and becoming teachers. If we are to change the downward spiral, we must enable students to see the excitement in physics – the wonder and the amazing possibilities of being able to see how the universe works.

Women are underrepresented in science, especially in physics education. Most leakage from the STEM career “pipeline” occurs in high school and in the transition from high school to college, not in college. Most students who had not taken high school physics ever enter the pipeline. Engaging, well-prepared physics teachers are critical to providing capable students and especially women with the confidence and interest to pursue STEM degree programs. Poor initial physics experiences can dissuade and demoralize. Highly qualified physics teachers tend to be hired by established boarding schools our big cities, not by districts in our inner cities and rural areas. Inequality of opportunity in physics education contributes to inequality in college and career outcomes. In this course, assessment techniques and pedagogical practices that improve women and girls’ knowledge, attitude and participation in science would be employed.

### The Purpose of the Laboratory

Physics is an experimental science. The theoretical concepts and relationships introduced in the lecture part of the course describe the general nature and behavior of real phenomena. They were, appropriately, discovered by (or inducted from) careful observation and thoughtful analysis of actual experiments. Genuine understanding entails being able to relate the abstract ideas to the particular facts to which they correspond. The premise of the scientific method is that (observation of) nature is the ultimate judge of the truth of any physical theory. Indeed, experiments designed to prove certain ideas have often ended up showing them to be wrong. Consequently, all physical concepts must be verified experimentally if they are to be accepted as representing laws of nature. The laboratory is not a contest whose object is to get the “right answer.” The purpose is to learn how to gain knowledge by looking at reality, not an attempt to make reality conform to preconceptions. The important thing is to learn how to be observant, to really see what happens, and to deal with this information with the strictest integrity. And to understand, or learn to understand, the meaning of what happens.

Course Title	General Physics Theory II						
Course Code	EBS 216	Course Level:	200	Credit Value:	2	Semester	1
Pre-requisite	General Physics Theory I						
Course Delivery Modes	Face -to -face <sup>1</sup> <input checked="" type="checkbox"/>	Practical Activity <sup>2</sup> <input type="checkbox"/>	Work-Based Learning <sup>3</sup> <input checked="" type="checkbox"/>	Seminars <sup>4</sup> <input type="checkbox"/>	Independent Study <sup>5</sup> <input checked="" type="checkbox"/>	e-learning opportunities <sup>6</sup> <input checked="" type="checkbox"/>	Practicum <sup>7</sup> <input type="checkbox"/>
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	<p>This is the second part of the two-semester introductory physics course aimed primarily at students majoring in the sciences. A non-calculus approach is used but a working knowledge of algebra is required. The main topic treated include: Introduction to Optics, Waves and acoustics, Static electricity, Current electricity and electric energy</p> <p><b>Build problem-solving skills:</b> The key to problem solving is understanding the basics of the subject. So, the focus should be on strengthening the basic concepts of any topic to the students. A complaint that is often heard in a Physics class is, “Sir I understand the concepts but I just can't solve the problems.” Students are usually able to solve the problems that involve basic equations. But, problems that require the fundamental concepts become a hard nut to crack for the students. So, worksheets that include real life Physics problems should be given to the students instead of computational Physics problems. The approaches that would be used in the delivery of this course should prepare trainees to ensure the learning progress of all students by projecting gender roles and issues relating to equity and inclusivity. (NTS 2b, 2c, p13; 3e-3m, 3p, p14; NTECF Pillar 1)</p>						
Course Learning Outcomes <sup>8</sup> : including INDICATORS for each learning outcome	<p>Outcomes: Upon successful completion of the course, learners will be able to:</p> <p>1. Demonstrate an understanding of reflection and refraction, with the emphasis on an interpretation in terms of waves. (NTS 2b, 2c, p13; 3l, 3m, p14)</p>			<p>Indicators</p> <p>Design a demonstration of refraction using a ripple tank. Prepare learner to:</p> <ul style="list-style-type: none"> <li>know how to justify the law of reflection by a wave diagram.</li> <li>know how to justify Snell’s law in terms of</li> </ul>			

				<p>wave velocities.</p> <ul style="list-style-type: none"> <li>• be able to perform calculations involving the refractive index.</li> <li>• be able to perform calculations involving critical angle.</li> <li>• know the benefits of fibre optic communication.</li> </ul>
		2. Appreciate the idea that vibrations can give rise to disturbances travelling outwards, i.e. to progressive waves, and identify types and some of the basic properties of waves. (NTS 2b, 2c, p13; 3f, 3g, 3j, p14)		<ul style="list-style-type: none"> <li>• Use a “slinky” type spring, diameter about 9 cm, to show longitudinal waves.</li> <li>• Also use the slinky spring to show longitudinal pulses.</li> </ul>
		3. Demonstrate an understanding of basic electrical ideas, particularly static electricity, current electricity and electric energy. (NST 2b, 2c, p13; 3g, 3j, 3m, p14)		<ul style="list-style-type: none"> <li>• Design a circuit using batteries and three identical resistors.</li> <li>• Prepare a schematic diagram of cell connected to a lamp. The idea to get across is that charge carriers are pushed around a circuit by the emf of the cell.</li> <li>• Design a schematic diagram of “spooning charge.”</li> </ul>
Course Content	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	1.	Introduction to Optics	<ul style="list-style-type: none"> <li>- Reflection and Refraction at plane surfaces</li> <li>- Reflection at curved surfaces (Mirrors)</li> </ul> Refraction at curved surfaces (Lenses)	<ul style="list-style-type: none"> <li>• Reflection and refraction with ripple tank.</li> <li>• Show reflection of ripples at a straight barrier. Start with straight ripples striking a straight barrier, at an angle. Continue with a single straight ripple, then a curved ripple.</li> <li>• To show refraction with a ripple tank, you need to show how ripples change speed when travelling from deeper into shallower water</li> </ul>

				<p>(or vice versa).</p> <ul style="list-style-type: none"> <li>• Submerge a sheet of glass in the water to provide an area of shallower water; the shallower, the better.</li> <li>• Show diagrams (both reflection and refraction) to summarize these observations.</li> </ul>
2.	Waves and acoustics	<ul style="list-style-type: none"> <li>- Mechanical waves (types and periodic waves)</li> <li>- Mathematical description of wave</li> <li>- Characteristic properties</li> </ul> <p>Sound waves – stationary waves and Doppler effect.</p>		<ul style="list-style-type: none"> <li>• Fix one end of the slinky using a retort stand and large weight, keep it on the floor or bench, and keep hold of the other end yourself.</li> <li>• Demonstrate how a pulse travels along the spring when you move the end from side to side (you will have to move your hand sharply to get a good pulse). Repeated pulses make up a continuous wave.</li> <li>• Fix one end of the slinky spring to a retort stand, and quickly push the free end back and forth, along the length of the spring. Watch the motion of the marked coil. It moves to and fro as the disturbance is passed along.</li> </ul>
3.	Static electricity	<ul style="list-style-type: none"> <li>- Properties of electric charge</li> <li>- Coulombs Law</li> <li>- Gauss's law.</li> <li>- Electric potential and Potential energy.</li> </ul> <p>-Capacitors and capacitance</p>		<ul style="list-style-type: none"> <li>• Set the spooning charge experiment to demonstrate that electric charge can be picked up and carried by a spoon, just as if it were sugar or milk.</li> <li>• By using a range of capacitors, resistors and an ammeter, demonstrate charging and discharging of capacitors.</li> </ul>
4.	Current electricity and electric energy	<ul style="list-style-type: none"> <li>- Electric circuit</li> <li>- Series and parallel arrangements of</li> </ul>		<ul style="list-style-type: none"> <li>• Set up the circuit using batteries and three identical resistors. At the same time, show the</li> </ul>

			<p>cells and resistors</p> <ul style="list-style-type: none"> <li>- Ohms Law (Ohmic &amp; non ohmic conductors)</li> <li>- Measurement of electric current, potential difference, resistance, emf, internal resistance, lost volt of a cell</li> <li>- Simple calculations involving the use of the formula for resistors in series and in parallel.</li> </ul> $R = R_1 + R_2 \dots\dots\dots,$ $\frac{1}{R} = \frac{1}{R_1} + \frac{1}{R_2} \dots\dots\dots, V =$ $IR, \text{Emf} = I(r + R)$ <ul style="list-style-type: none"> <li>- Electric power</li> </ul> <p>-Kirchhoff's Laws</p>	<p>circuit diagram. Give a running commentary as you connect up.</p> <ul style="list-style-type: none"> <li>• Show a cell connected to a lamp.</li> <li>• Introduce the terminology of electromotive force (voltage across a source of electrical energy) and potential difference (voltage across a component that uses electrical energy).</li> <li>• Stress that, despite its name, emf is not a force but a voltage, measured in volts.</li> </ul>							
<p>Course Assessment Components<sup>9</sup> : (Educative assessment of, for and as learning)</p>	<p>A combination of formative and summative assessment including group tasks, quizzes, individual and take home assignment and examination will be used.</p> <p>Assessment weighting:</p> <table border="0" style="width: 100%;"> <tr> <td colspan="2">Component 1: Formative assessment</td> </tr> <tr> <td>Quiz 1 (CLO 1)</td> <td style="text-align: right;">10%</td> </tr> <tr> <td>Quiz 2 (CLO 3)</td> <td style="text-align: right;">10%</td> </tr> <tr> <td>Group tasks (CL 2)</td> <td style="text-align: right;">10%</td> </tr> </table>			Component 1: Formative assessment		Quiz 1 (CLO 1)	10%	Quiz 2 (CLO 3)	10%	Group tasks (CL 2)	10%
Component 1: Formative assessment											
Quiz 1 (CLO 1)	10%										
Quiz 2 (CLO 3)	10%										
Group tasks (CL 2)	10%										

	<p>Individual assignment (CLO 4) 10%</p> <p>Component 2: Summative assessment CLO 1-4. 60%</p> <p>Students will be graded as follows: <b>A</b>=80-100%; <b>B+</b>=75-79%; <b>B</b> =70-74%, C+ =65-69%, <b>C</b>= 60-64%, <b>D+</b>=55-59, <b>D</b>=50-54, <b>E</b>&lt; 50 (Fail)</p>
Instructional Resources	Computer assisted instruction, Interactive simulations, Smart phones, Google, YouTube, PowerPoint Projections
Required Text (core)	<p>Freedman, R. A. &amp; Yound, H. D. (2008). <i>University physics</i>. (12<sup>th</sup> ed.). Pearson and Addison Wesley.</p> <p>Jewett, J.W. &amp; Sarway, R. A. (2002). <i>Principles of physics</i>. (3<sup>rd</sup> ed.) Harcourt College publishers.</p> <p>Resruer, R., Halliday, D., &amp; Walker, J. (2010). <i>Fundamentals of physics</i>. John Wiley &amp; Sons Inc.</p>
Additional Reading List <sup>10</sup>	Gibbs, K. (2003). <i>Advanced Physics</i> . Cambridge: Cambridge University Press.

## **GENERAL PHYSICS PRACTICAL II**

### **CONTEXT**

Physics has often been viewed as a difficult subject, and this is an attitude that is engendered by teachers who were not well taught themselves and who are only teaching physics because there is no-one else to do it. The subject is therefore often taught without enthusiasm, together with “dry” content. The curriculum itself doesn’t help as it is often not well thought through and much of what we teach in high school is foundational for higher level courses. This means that the more interesting material is often deemed to be too conceptually difficult, especially by those whose main subject interest is chemistry or biology. There are many students in our classes who are doing physics as a means to get into engineering or medical courses. This may be one of the reasons why there is a lack of students studying for science degrees and becoming teachers. If we are to change the downward spiral, we must enable students to see the excitement in physics – the wonder and the amazing possibilities of being able to see how the universe works. Women are underrepresented in science, especially in physics education. Most leakage from the STEM career “pipeline” occurs in high school and in the transition from high school to college, not in college. Most students who do not/cannot take high school physics never enter the pipeline. Engaging, well-prepared physics teachers are critical to providing capable students and especially women with the confidence and interest to pursue STEM degree programs. Poor initial physics experiences can dissuade and demoralize. Highly qualified physics teachers tend to be hired by established boarding schools our big cities, not by districts in our inner cities and rural areas. Inequality of opportunity in physics education contributes to inequality in college and career outcomes. In this course, assessment techniques and pedagogical practices that improve women and girls’ knowledge, attitude and participation in science would be employed.

### **The Purpose of the Laboratory**

Physics is an experimental science. The theoretical concepts and relationships introduced in the lecture part of the course describe the general nature and behavior of real phenomena. They were, appropriately, discovered by (or inducted from) careful observation and thoughtful analysis of actual experiments. Genuine understanding entails being able to relate the abstract ideas to the particular facts to which they correspond. The premise of the scientific method is that (observation of) nature is the ultimate judge of the truth of any physical theory. Indeed, experiments designed to prove certain ideas have often ended up showing them to be wrong. Consequently, all physical concepts must be verified experimentally if they are to be accepted as representing laws of nature. The laboratory is not a contest whose object is to get the “right answer.” The purpose is to learn how to gain knowledge by looking at reality, not an attempt to make reality conform to preconceptions. The important thing is to learn how to be observant, to really see what happens, and to deal with this information with the strictest integrity. And to understand, or learn to understand, the meaning of what happens.



<b>Course Title</b>	<b>General Physics Practical II</b>						
<b>Course Code</b>	<b>EBS 216P</b>	<b>Course Level:</b>	<b>200</b>	<b>Credit Value:</b>	<b>1</b>	<b>Semester</b>	<b>1</b>
<b>Pre-requisite</b>	<b>General Physics Practical I</b>						
<b>Course Delivery Modes</b>	<b>Face -to - face <sup>1</sup></b> <input checked="" type="checkbox"/>	<b>Practical Activity <sup>2</sup></b> <input checked="" type="checkbox"/>	<b>Work-Based Learning <sup>3</sup></b> <input checked="" type="checkbox"/>	<b>Seminars <sup>4</sup></b> <input type="checkbox"/>	<b>Independent Study <sup>5</sup></b> <input checked="" type="checkbox"/>	<b>e-learning opportunities <sup>6</sup></b> <input checked="" type="checkbox"/>	<b>Practicum <sup>7</sup></b> <input type="checkbox"/>
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	<p>This is the practical component of General Physics Theory II and is designed to help students gain hands-on experience with laboratory equipment as they perform experiments to enhance their understanding of some of the theoretical concepts. Practical ability to do experiments and analyze data is usually acquired through practice and experience. Practice is very important in learning any new discipline; such as, for example, a new language. A good lecture may be very helpful but not fully useful without actual practice. In experimental science, practice involves solving many problems (i.e. homework) and performing a variety of experiments (i.e. labs). Practice is essential to being able to make the connection between theory and experience. Such experiments include the determination of focal length of lenses and refractive index of glass block; investigation of Ohm's law and determination of resistivity of materials. The approaches that would be used in the delivery of this course should prepare trainees to ensure the learning progress of all students by projecting gender roles and issues relating to equity and inclusivity. (NTECF, NTS 2b, 2c, p13, 3a, 3c, 3e-3m, 3p, p14;)</p>						
<b>Course Learning Outcomes <sup>8</sup>: including INDICATORS for each learning outcome</b>	Outcomes: Upon successful completion of the course, learners will be able to:					Indicators	
	1. Demonstrate the ability to organize the activities that lead to a successfully completely scientific investigation. (NTS 2b, 2c, p13, 3a, 3c, 3f, p14)					<ul style="list-style-type: none"> <li>• Design and carry out the experiment as outlined.</li> <li>• Follow and use the format for laboratory experimental report writing.</li> </ul>	
	2. Demonstrate the ability to use technology to collect and analyze experimental data and the ability to extract elements of the physical principles exemplified by the system being studied. (NTS 2b, 2c, p13, 3a, 3c, 3f, 3i, 3j. p14)					<ul style="list-style-type: none"> <li>• Collect and analyze experimental data using the appropriate technological tools.</li> <li>• Take time to familiarize yourself with each equipment that will be used in the laboratory.</li> </ul>	
	3. Demonstrate the importance of safety to the students. Students will participate in Laboratory Safety training and complete a form indicating understanding and anticipate compliance. Students will be informed and properly trained to use potentially hazardous equipment or materials encountered in this course.(NST					<ul style="list-style-type: none"> <li>• Observe all safety rules in the laboratory.</li> <li>• Stay focus and be conscious of what you are doing.</li> <li>• Ask when in doubt.</li> </ul>	

	2b, 2c, p13, 3c. p14).			
<b>Course Content</b>	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	1.	Wheatstone Bridge Experiment	<ul style="list-style-type: none"> <li>• Determination of unknown resistance</li> <li>• Determination of the total resistance of               <ul style="list-style-type: none"> <li>i) resistors in series</li> <li>ii) resistors in parallel</li> </ul> </li> </ul>	Learners to design and carry out the experiments as required.
	2.	Wheatstone Bridge Experiment	Determination of the resistance of a wire as a function of its cross-section.	Learners to design and carry out the experiments as required.
	3.	Water Wave Channel	To demonstrate and investigate surface waves in water.	Learners to design and carry out the experiments as required.
	4.	Measurement of Low Resistance	To plot the current/voltage characteristics of metal rod (copper & aluminium) and calculate their resistivity.	Learners to design and carry out the experiments as required.
	5.	Measurement of Low Resistance	Determination of the resistances of some connecting cords of different lengths by plotting their current/voltage characteristics.	Learners to design and carry out the experiments as required.
	6.	Refraction of Light	Determination of the focal length of a converging lens.	Learners to design and carry out the experiments as required.
	7.	Refraction of Light	Determination of the refractive index of a glass block using Snell's Law.	Learners to design and carry out the experiments as required.
	8.	Refraction of Light	Determination of the focal length of a converging lens using optical pins (no parallax method)	Learners to design and carry out the experiments as required.
	9.	Resonance: Waves in Pipes	Determination of the velocity of sound in air	Learners to design and carry out the experiments as required.
10.	Resonance: Waves in strings	Determination of the frequency A.C mains.	Learners to design and carry out the experiments as required.	
<b>Course Assessment</b>	Both formative and summative assessment including individual lab report, and end of semester examination will be used.			

<b>Components<sup>9</sup> :</b> <b>(Educative assessment of, for and as learning)</b>	<b>Assessment weighting:</b> <b>Component 1: Formative assessment</b> This is practical course, students are expected to carry out 10 practical activities and each practical will form part of the <b>Component 1</b> . Component 1 will constitute 60% of the course assessment.  <b>Component 2: Summative assessment</b> One practical examination will be conducted at the end of the semester, this will constitute 40% of the course assessment.  Students will be graded as follows: <b>A=80-100%; B+=75-79%; B =70-74%, C+ =65-69%, C= 60-64%, D+=55-59, D=50-54, E&lt; 50 (Fail)</b>
<b>Instructional Resources</b>	Physics Laboratory, Computer/Laptops, Smart phones, Google, YouTube, Lab equipment/apparatus as indicated.
<b>Required Text (core)</b>	J.W. & Sarway, R. A. (2002). <i>Principles of physics</i> . (3 <sup>rd</sup> ed.) Harcourt College publishers. r, R., Halliday, D., & Walker, J. (2010). <i>Fundamentals of physics</i> . John Wiley & Sons Inc.
<b>Additional Reading List<sup>10</sup></b>	Department of Physics, UCC (2016). Laboratory Manual for General Physics Theory II

## GENERAL CHEMISTRY THEORY II

### CONTEXT

The teaching and learning of Chemistry should be done in such a way that new concepts are presented in real-life (outside the classroom) situations and experiences that are familiar to the students. The examples and student exercises should be presented in the context of their use. These should include many real, believable problem-solving situations that students can recognize as being important to their current or possible future lives. The students should be encouraged to gather and analyze their own data as they are guided in discovery of the important concepts. Therefore, teachers should create opportunities for students to gather and analyze their own data for enrichment and extension. The lessons and activities should encourage the student to apply concepts and information in useful contexts, projecting the student into imagined futures. The students are expected to participate regularly in interactive groups where sharing, communicating, and responding to the important concepts and

decision making occur. The lessons, exercises, and laboratory work improve students' reading and other communication skills in addition to scientific reasoning and achievement.

Course Title	General Chemistry Theory II						
Course Code	EBS 254	Course Level	200	Credit value	2	Semester	1
Pre-requisite	Students have acquired knowledge in Senior High School Elective Chemistry						
Course Delivery Modes	Face-to-face <input checked="" type="checkbox"/>	Practical Activity <input checked="" type="checkbox"/>	Work-Based Learning <input checked="" type="checkbox"/>	Seminars <input type="checkbox"/>	Independent Study <input checked="" type="checkbox"/>	e-learning opportunities <input type="checkbox"/>	Practicum <input type="checkbox"/>
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	This chemistry course is designed to consolidate and expand on the content students have acquired from their lessons in the elective chemistry course at the senior high school level. The course treats states of matter, chemical kinetics, and some aspects of organic chemistry. Topics studied in this course include kinetic theory, rate of chemical reactions and chemical equilibrium, and functional group organic compounds. The approaches that would be used in the delivery of this course should prepare trainees to ensure the learning progress of all students by projecting gender roles and issues relating to equity and inclusivity. (NTS 2a, 2b, 2c, 2e. 2f, p.13; 3e-3o, p.14; NTECF Pillar 1)						
Course Learning Outcomes: including INDICATORS for Each learning outcome	Outcomes			Indicators			
	The course will enable students to: CLO 1. (a) state the properties of the states of matter in terms of the kinetic theory (b) describe the properties and behaviours of plasma (NTS 2c, 2e p. 13, 3h, 3j, p. 14).			a. outline the properties of solids, liquids and gases using the kinetic theory b. distinguish between the properties and behaviours of plasma and those of the other states,			
	CLO 2. explain the gas laws (NTS 2c, 2e p. 13, 3h, 3j, p. 14).			i) Use the kinetic model to explain Charles'; Boyle's; Dalton's; Graham's; Avogadro's laws and the ideal gas equation ii) Derive the mathematical relations of the gas laws iii) Perform calculations based on the laws			
CLO 3. describe the concept of vapour pressure			a. Explain the concept of vapour pressure				

	(NTS 2c, 2e p. 13, 3h, 3j, p. 14).	
CLO 4.	describe the nature of solids (NTS 2c, 2e p. 13, 3h, 3j, p. 14).	a. Describe ionic, metallic, covalent and molecular solids
CLO 5.	Differentiate between physical and chemical changes (NTS 2c, 2e p. 13, 3h, 3j, p. 14).	a. Give examples of reactions that undergo physical and chemical changes b. Tell three differences between physical and chemical changes
CLO 6.	explain the factors that affect the rate of chemical reactions (NTS 2c, 2e p. 13, 3h, 3j, p. 14).	a. describe how temperature, catalyst, concentration, surface area (particle size) or nature of reactants, and pressure (for reactions involving gases) influence the rate of chemical reactions
CLO 7.	Demonstrate understanding of reversible reactions and equilibrium (NTS 2c, 2e p. 13, 3h, 3j, p. 14).	a. explain the factors affecting reversible reactions b. give two examples of reversible reactions c. describe the effect of equilibrium position in a chemical reaction
CLO 8.	classify and name different types of organic compounds (NTS 2c, 2e p. 13, 3h, 3j, p. 14).	a. group given organic compounds into alkanes, alkenes, alkynes, alkanols, alkanones, alkanolic acids and alkanoates b. write the names of given organic compounds
CLO 9.	describe the structures of different organic compounds (NTS 2a, 2b, 2c, 2e. 2f, p.13; 3e-3o, p.14)	a. tell the differences in the structures of different organic compounds b. draw the structures of given organic compounds c. describe structural (chain, position and functional group) and geometric isomerism
CLO 10.	discuss the chemical and physical properties of organic compounds (NTS 2a, 2b, 2c, 2e. 2f, p.13; 3e-3o, p.14)	a. describe the chemical and physical properties of organic compounds b. analyze the chemical and physical properties of organic compounds

	CLO 11. discuss the preparation and uses of organic compounds (NTS 2a, 2b, 2c, 2e. 2f, p.13; 3e-3o, p.14)		a. explain the laboratory preparation of three named organic compounds b. describe the uses of three named organic compounds	
	Units	Topics	Sub-topics (if any):	Teaching and learning activities to active learning outcomes
Course Content	1	STATES OF MATTER	a) Kinetic theory	i) Class discussion of the postulates (assumptions) of the kinetic-molecular theory  ii) Student presentation on the use of the kinetic model to explain <ul style="list-style-type: none"> <li>• the nature of solids, liquids and gases;</li> <li>• the changes of states of matter</li> </ul> iii) Student presentation on the properties and behaviours of plasma  iv) Computer simulation of the changes of state of matter in terms of movement of particles. v) Illustrations of changes of state using the different forms of water, iodine, sulphur, naphthalene, etc. vi) Demonstration of Brownian motion using any of the following experiments: <ul style="list-style-type: none"> <li>• Pollen grains/powdered sulphur in water (viewed under a microscope)</li> <li>• Smoke in a glass container illuminated by a strong light from the side</li> <li>• A dusty room being swept and viewed from outside under</li> </ul>

				sunlight.
			b) Diffusion	i) Demonstration the concept of diffusion using the following: <ul style="list-style-type: none"> <li>• Diffusion of bromine or iodine or <math>\text{NO}_2</math> from a sealed tube into an empty tube</li> <li>• Spread of scent of ammonia in room.</li> </ul>
			c) Gases	b. Using the lecturette method to give a qualitative explanation of each of the gas laws: Charles'; Boyle's; Dalton's; Graham's; Avogadro's laws and the ideal gas equation, using the kinetic model c. Class discussion on the Mathematical relations of the gas laws and calculations based on the laws d. Practical work on preparation of gases, that is, Laboratory preparation of gases lighter than air ( $\text{H}_2$ , $\text{NH}_3$ ) and gases heavier than air ( $\text{O}_2$ , $\text{HCl}$ and $\text{SO}_2$ ) to illustrate the principles of purification and collection of gases. e. Class discussion of the results of the practical work and the physical and chemical properties of gases
			d) Liquids	a. Student presentation on the concept of vapour pressure b. Group discussion on Liquids as an intermediate state between gases and solids in the kinetic-molecular c. Class discussion on simple methods for determination of boiling points and standard boiling point.
			e) Solids (Types and structures)	i) Class discussion of Ionic, metallic, covalent and molecular solids  Visit to industrial sites to interact with workers, observe and discuss the application of State of matter in the industry

				Write a report on the industrial visit for a general class discussion
2	RATE OF CHEMICAL REACTION AND CHEMICAL EQUILIBRIUM	a) Physical and chemical changes	i) Brainstorming to define physical and chemical changes ii) Class discussion on the examples of reactions that undergo physical and chemical changes	
		b) Rate of chemical reactions	i) Class discussion on the meaning of rate of reaction iii) Class discussion on the hypothetical equation to show the relationship between the rate of reaction, concentration of reactants and time iv) Class discussion on the factors that affect the rate of chemical reaction	
		c) Reversible reactions and equilibrium	ii) Class discussion on the factors affecting reversible reactions, examples of reversible reactions, and the effect of equilibrium position in a chemical reaction  Visit to industrial sites to interact with workers, observe and discuss the application of Rate of Chemical Reaction and Chemical Equilibrium in the industry  Write a report on the industrial visit for a general class discussion	
3	THE CHEMISTRY OF CARBON	Alkanes a) Nomenclature of alkanes	i) use lecturette method to explain the rules for naming alkanes ii) use question and answer method to guide students to name given alkanes	
		Alkanes b) Isomerism in alkanes	i) Discuss chain isomerism with students	
		Alkanes c) Physical properties of	i) Class discussion of the physical properties of alkanes, e.g. melting point, boiling point, solubility, volatility	



			alkanes	and states.
			Alkanes d) Chemical properties (chemical reactions)	i) Class discussion of the chemical properties (chemical reactions) ii) Discuss the combustion and halogenations reactions of alkanes.
			Alkanes e) Conversion to alkanes	iii) Discuss the preparation of alkanes
			Alkanes f) Use of alkanes	i) Class discussion of the uses of alkanes
			Alkenes g) Nomenclature of alkenes	i) use lecturette method to explain the rules for naming alkenes i) use question and answer method to guide students to name given alkenes
			Alkenes h) Isomerism in alkenes	i) Computer molecular modelling of structural and geometric isomerism to be followed by a class discussion of structural isomerism (chain, position and functional group isomerism) and geometric isomerism (cis and trans isomerism) ii) Use question and answer method to guide students to identify alkanes and their corresponding cycloalkane isomers iii) Use question and answer method to guide students to identify cycloalkanes and their corresponding alkyne isomers ii) Use question and answer method to guide students to identify the isomers in a given polyene

		Alkenes i) Physical properties of alkenes	i) Class discussion of the physical properties of alkenes
		Alkenes j) Reactivity and reactions of alkenes	i) Class discussion on the reactivity of alkenes ii) Class discussion on the factors affecting reactivity of alkenes iii) Class discussion on the types of reactions of alkenes iv) Class discussion of the reaction of symmetrical and unsymmetrical alkenes with hydrogen, bromine, halogen halides and water
		Alkenes k) Conversion to alkenes	i) Discuss with students the preparation of alkenes
		Alkenes l) Uses of alkenes	i) Class discussion of the uses of alkenes
		Alkynes m) Nomenclature of alkynes	i) use lecturette method to explain the rules for naming alkynes ii) use question and answer method to guide students to name given alkynes
		Alkynes n) Isomerism in alkynes	i) Computer molecular modelling of structural isomerism to be followed by a class disc discussion of structural isomerism (chain and position isomerism) ii) Use question and answer method to guide students to identify cycloalkanes and their corresponding alkyne isomers
		Alkynes o) Physical properties of alkynes	i) Class discussion of the physical properties of alkenes

		Alkynes p) Preparation of alkynes	i) Discuss the preparation of ethyne from calcium carbide and water. ii) Discuss the test for alkynes
		Alkynes q) Reactivity and reactions of alkynes	i) Discuss chemical reactions of alkynes iii)
		Alkanols /Alcohols r) Sources of alkanols	i) Class discussion of the sources of alcohols
		Alkanols /Alcohols s) Isomerism in alkanols	ii) Computer molecular modelling of structural isomerism to be followed by a class disc discussion of structural isomerism (chain, position and functional group isomerism)
		Alkanols /Alcohols t) Structure and shape of alkanol	iv) Class discussion of the structure and shape of alkanols, e.g. methanol (CH <sub>3</sub> OH)
		Alkanols /Alcohols u) Physical properties of alkanols	i) Class discussion of the physical properties of alkanols
		Alkanols /Alcohols v) Preparation of alkanols.	i) Practical work on the preparation alkanols from alkenes and haloalkanes, palm wine, sugarcane juice, cocoa, maize, millet and fruits
		Alkanols /Alcohols w) Chemical properties of alkanols	i) Practical work on the chemical properties of alkanols ii) Class discussion of the chemical properties of alkanols
		Alkanols /Alcohols x) Uses of alkanols	i) Class discussion of the uses of alkanols

			Carbonyl Compounds (Alkanals and Alkanones) y) Structures and shapes of alkanals and alkanones (also known as aldehydes and ketones)	i) Class discussion of the structure and shapes of carbonyl compounds
			Alkanals z) Physical properties of carbonyls	i) Class discussion of the physical properties of carbonyl compounds
			Alkanals aa) Uses of alkanals	iii) Class discussion of the uses of carbonyl compounds
			Alkanoic acids and Alkanoates bb) Sources, preparation and properties of Alkanoic acids cc) Uses of Alkanoic acids dd) Sources of fats and oils: Physical and chemical properties saponification and soap production. Hardening of oils	i) Class discussion of the sources, preparation, properties, and uses of alkanoic acids ii) Class discussion of the sources of fats and oils, physical and chemical properties, saponification and soap production, hardening of oils.
			ee) Derivatives of Alkanoic acids	i) Class discussion of acid chlorides, acid anhydrides, amides and esters  - Visit to industrial sites to interact with workers, observe and discuss the application of Organic Chemistry the industry - Write a report on the industrial visit for a general class discussion
<b>Course Assessment</b>	<b>Component 1:</b> Formative assessment (individual and/or group presentations) Summary of Assessment Method: Individual and/or group presentations on Unit 1 (core skills to be developed are effective communicative			

(Educative assessment: of, for and as learning)	<p>skills, collaborative skills, and critical thinking skills). Students will be involved in assessing their colleagues (peer assessment)</p> <p>Assessment Weighting: 20%</p> <p>Assesses Learning Outcomes: CLO 1-5 (Unit1)</p> <p><b>Component 2:</b> Formative assessment (quizzes, class tests, class exercises, and assignments)</p> <p>Summary of Assessment Method: Quizzes, class test, class exercises and assignments on Units2 and 3 (core skills to be developed: critical thinking , creativity, and personal development)</p> <p>Assessment Weighting: 20%</p> <p>Assesses Learning Outcomes: CLO 6 - 10 (Units 2 and 3)</p> <p><b>Component 3:</b> Summative assessment</p> <p>Summary of Assessment Method: End of semester examination (composed of multiple choice questions and essay-type questions) on Units 1 to 3 (core skills to be developed: critical thinking, creative thinking, problem solving, innovation, and personal development)</p> <p>Weighting: 60%</p> <p>Assesses Learning Outcomes: CLO 1-11 (Units 1 – 3)</p>
Instructional Resources	<ol style="list-style-type: none"> <li>1. Charts, pictures and models.</li> <li>2. Computers and projectors, television, and living objects.</li> <li>3. Excursions and visits, exhibitions and fairs, and experimentation in the laboratory and work-shop</li> </ol>
Required Text (core)	<p>Chang, R. (2003). <i>General chemistry: The essential concepts</i>. (3<sup>rd</sup>ed.). Boston: McGraw Hill.</p> <p>Dadson, B.A. (2008). <i>The first course in organic chemistry</i>. Cape Coast: Risoprint Enterprise.</p> <p>Gallagher, R. &amp; Ingram, P. (1987). <i>Chemistry made clear</i>. Oxford: Oxford University Press.</p> <p>J.N.C., Amasiatu, G.I., &amp; Ajagbe, J.O. (2005). <i>Comprehensive certificate chemistry</i>. Ibadan: University Press PLC.</p> <p>..., K.W., Davis, R.E., &amp; PeackM.L.(2000) <i>General Chemistry</i>. (6<sup>th</sup>ed.). Fort Worth: Saunders College Publishing.</p> <p>Holderness, A. &amp; Lambert, J. A. (1979). <i>New certificate chemistry</i>, London: Heinemann.</p>
Additional Reading List	<p>Abbey, T.K., Ameyibor, K., Essiah, J.W., Nyavor, C.B., Seddoh, S. &amp;Wiredu M.B. (1995). <i>GAST Science for senior secondary school</i>. London: Unimax Publishers Limited</p> <p>Ameyibor, K., &amp;Wiredu M. B. (1991). <i>GAST chemistry for senior secondary school</i>. London: Macmillan Education Limited.</p>

## GENERAL CHEMISTRY PRACTICAL II

### CONTEXT

EBS 254P General Chemistry Practical II uses laboratory work in chemistry to support explanation of theory. The course will allow students to take an active role in their learning through practical work. The students would be encouraged to engage in laboratory work and analyze their own data as they are guided in discovery of evidence to support explanation of theory. Therefore, teachers should create opportunities for students to do practical work and analyze their own data for enrichment and extension. The students are expected to participate regularly in interactive groups where sharing, communicating, and responding to the important concepts and decision making occur. The laboratory work improves students' reading and other communication skills in addition to scientific reasoning and achievement

Course Title	General Chemistry Practical II						
Course Code	EBS 254P	Course Level	200	Credit value	1	Semester	2
Pre-requisite	Students have studied Senior High School Elective Chemistry						
Course Delivery Modes	Face-to-face <input checked="" type="checkbox"/>	Practical Activity <input checked="" type="checkbox"/>	Work-Based Learning <input checked="" type="checkbox"/>	Seminars <input type="checkbox"/>	Independent Study <input type="checkbox"/>	e-learning opportunities <input type="checkbox"/>	Practicum <input type="checkbox"/>
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	<p>The practical course consolidates and builds on the practical skills students have acquired at the senior high school level. In this practical course, students will develop the skills of doing qualitative testing and identifying functional groups in organic compounds, anions and cations in inorganic compound. Students will be introduced to chemical tests based on reactions that produce colour change by adding a reagent or the production of an insoluble solid that appears as a precipitate. They will also be engaged in different purification techniques like liquid-liquid extraction, thin layer chromatography (TLC), paper chromatography (PC), simple distillation, fractional distillation, steam distillation. The approaches that would be used in the delivery of this course should prepare trainees to ensure the learning progress of all students by projecting gender roles and issues relating to equity and inclusivity.</p> <p>(NTS 2a, 2b, 2c,2e. 2f,p.13; 3e-3o, p.14; NTECF Pillar 1)</p>						
Course Learning Outcomes: including	Outcomes The course will enable students to acquire practical skills by:			Indicators The student will be able to:			

INDICATORS for Each learning outcome	CLO 1. separating immiscible liquid mixture using liquid-liquid extraction (NTS 2c, 2e p. 13, 3h, 3j, p. 14).			<ul style="list-style-type: none"> <li>• separate immiscible liquid mixtures using liquid-liquid extraction</li> </ul>
	CLO 2. performing simple and fractional distillation to purify liquid mixtures (NTS 2a, 2b, 2c,2e. 2f, p. 13; 3e-3o, p. 14)			<ul style="list-style-type: none"> <li>• describe the steps involved in simple and fractional distillation to purify liquid mixtures</li> <li>• perform simple and fractional distillation to purify liquid mixtures</li> </ul>
	CLO 3. extracting essential oil from natural source (NTS 2a, 2b, 2c,2e. 2f, p. 13; 3e-3o, p. 14)			<ul style="list-style-type: none"> <li>• perform an experiment to extract essential oil from natural source</li> </ul>
	CLO 4. comparing the identity of two compounds using TLC and PC (NTS 2c, 2e p. 13, 3h, 3j, p. 14).			<ul style="list-style-type: none"> <li>• Demonstrate the ability to use TLC and PC</li> <li>• Compare the identity of two compounds using TLC and PC</li> </ul>
	CLO 5. Testing for specific functional groups of organic compounds (NTS 2c, 2e p. 13, 3h, 3j, p. 14).			<ul style="list-style-type: none"> <li>• perform tests for the following:               <ul style="list-style-type: none"> <li>- unsaturated compounds</li> <li>- alkanols</li> <li>- carbonyl compounds</li> <li>- akanoic acids</li> <li>- amines</li> <li>- esters</li> <li>- amides</li> </ul> </li> </ul>
Course Content	Units	Topics	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	1	Purification techniques of Organic Compounds	Liquid – Liquid Extraction	Separation of immiscible liquid mixture using liquid –liquid extraction procedure (e.g. mixture of cooking oil and water) in the laboratory

			Simple and Fractional distillation	Students to perform separation of miscible liquid mixture using simple and fractional distillation.
			Steam Distillation	Students to use steam distillation to extract essential oil from plant.
			Thin Layer Chromatography and Paper Chromatography	Students to do laboratory work involving Thin Layer Chromatography and Paper Chromatography Use of videos/computer simulations to demonstrate the purification techniques
	2	Qualitative analysis of Organic compounds	Alkenes and Alkynes	Students to perform identification test for unsaturation (alkenes/alkynes) in an organic compound using bromine water or bromine in carbon tetrachloride (CCl <sub>4</sub> ) in the laboratory
			Alcohols	Students to test for alcohols (methanol, CH <sub>3</sub> OH/ethanol, CH <sub>3</sub> CH <sub>2</sub> OH) using potassium permanganate (KMnO <sub>4</sub> ) reagent or potassium dichromate (K <sub>2</sub> Cr <sub>7</sub> O <sub>4</sub> ) in the laboratory
			Aldehydes and Ketones	Students to test for Aldehydes and ketones using 2,4-dinitrophenylhydrazine reagent in the laboratory
			Carboxylic acids	Students to test for carboxylic acid using wet blue litmus paper
			Amines	Students to test for amines using wet red litmus paper.
Course Assessment (Educative assessment: of, for and as	<p><b>Component 1:</b> Formative assessment (quizzes, class tests, class exercises, and assignments)            Summary of Assessment Method: Quizzes, class test, class exercises and assignments on Units 1-3 (core skills to be developed: critical thinking, creativity, problem solving, and personal development)            Assessment Weighting: 20%            Assesses Learning Outcomes: CLO 1-4 (Units 1)</p>			



learning)	<p><b>Component 2:</b> Formative assessment (individual and/or group practical work)  Summary of Assessment Method: Individual and/or group practical work on Units 1 -3(core skills to be developed are effective communicative skills, collaborative skills, and critical thinking skills). Students will be involved in assessing their colleagues (peer assessment)  Assessment Weighting: 20%  Assesses Learning Outcomes: CLO 5 (Units 2)</p> <p><b>Component 3:</b> Summative assessment  Summary of Assessment Method: End of semester practical examination on Units 1 to 3(core skills to be developed: thinking critically, problem solving, communicating concisely, managing time and report writing, and personal development)  Weighting: 60%  Assesses Learning Outcomes: CLO 1- 5 (Units 1&amp;2)</p> <p>The grading system will be guided by the following:  (b) <b>A</b>=80-100%; <b>B+</b>=75-79%; <b>B</b> =70-74%, C+ =65-69%, <b>C</b>= 60-64%, D+ = 55-59, D = 50-54, <b>FAIL</b>&lt;50</p>
Instructional Resources	<ol style="list-style-type: none"> <li>4. Laboratory chemicals and safety materials</li> <li>5. Liquid-liquid extraction equipment, distillation/fractional distillation apparatus, Paper chromatography kit, Thin-layer chromatography kit, steam distillation set</li> <li>6. Computers (with internet connectivity) and projectors, television DVD discs and DVD player.</li> <li>7. Visits to industrial sites</li> </ol>
Required Text (core)	<p>Kelter, P., Mosher, M. A. and Scott, A. (2007). Chemistry: The Practical Science (1<sup>st</sup> ed.). USA: Cengage Learning</p> <p>Ohia, G.N.C., Amasiatu, G.I., &amp;Ajagbe, J.O. (2005). <i>Comprehensive certificate chemistry</i>. Ibadan: University Press PLC.</p> <p>Okonkwo, E.S. (1976). <i>Certificate practical chemistry</i>. Accra: FEP International Limited</p> <p>Vogel, A. I., Tatchell, A. R., Furnis, B. S., Hannaford, A. J. &amp; Smith, P. W. G. (1989). Vogel's Textbook of Practical Organic Chemistry (5<sup>th</sup> ed.). Essex: Pearson Education Limited.</p>
Additional Reading List	<p>Ameyibor, K., &amp;Wiredu M. B. (1991). <i>GAST chemistry for senior secondary school</i>. London: Macmillan Education Limited.</p>

	Eilks, I. & Hofstein, A. (Eds.). (2013). A Practical Guide and Textbook for Student Teachers, Teacher Trainees and Teachers. Rotterdam: Sense Publishers.
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## ASSEMBLAGE AND CONSTRUCTION

### CONTEXT

There has been no well-coordinated effort to train teachers for the TVET (Visual Arts) sector. Teachers from the colleges of Education were largely 'generalist' teachers with little or no orientation in the TVET (Visual Arts) domain. This course is designed to equip student teachers with specialization in visual arts. This will prepare the students to practice and teach visual art (Assemblage and Construction) well at Junior Secondary School level.

<b>Course Title</b>	<b>ASSEMBLAGE AND CONSTRUCTION</b>						
<b>Course Code</b>	<b>EBS 201</b>	<b>Course Level:</b>	<b>200</b>	<b>Credit Value:</b>	<b>2</b>	<b>Semester</b>	<b>1</b>
<b>Pre-requisite</b>	<b>Arts and Creativity in Early Grade Education and Arts and Creativity in Upper Primary Education</b>						
<b>Course Delivering Mode</b>	<b>Face-to-face</b>	<b>Practical Activity</b>	<b>Work-Base Learning</b>	<b>Seminars</b>	<b>Independent Study</b>	<b>e-learning opportunities</b>	<b>Practicum</b>
<b>Course Description for significant learning (indicate NTS, NTECF, BSC, GLE to be addressed)</b>	<p>A beginning sculpture course that concentrates on the development of sculptural ideas through exploration of various materials and techniques used in assemblage and construction. Several introductory lectures and demonstrations should be considered with the bulk of the time dedicated to the completion of sculpture projects. Attention must be devoted to practical works which expose the student teachers to professional development.</p> <p>With a support from mentor, student teachers collaborate, with 2-4 teachers per a class to plan for and work with a small group or individual pupils, beginning to acquire the ability to consider children's learning, backgrounds and experience.</p> <p>NTECF; NTS, 1 a, p 12, 3 e, 3 k and 3 i, p 14.</p>						
<b>Course Learning Outcome: including INDICATORS for each learning outcome</b>	<p>Outcomes:</p> <p>CLO1. Understand the concept of Assemblage and Construction. NTS, 1 a, p 12, 3 e, 3 k and 3 i, p 14.</p> <p>CLO 2. Understand the Socio-Economic importance of</p>			<p>Indicators:</p> <p>1.1 Discuss the concept of Assemblage and Construction.</p> <p>1.2 Discuss the tools and materials used in Assemblage and Construction.</p> <p>1.3 Describe the various techniques in Assemblage and Construction.</p> <p>2.1 Discuss Socio-Economic importance of Assemblage and construction</p>			

	<p>Assemblage and construction NTS, 1 a, p 12, 3 e, 3 k and 3 i, p 14.</p> <p>CLO3. Apply the knowledge and skills in Assemblage and Construction. NTS, 1 a, p 12, 3 e, 3 k and 3 i, p 14.</p> <p>CLO 4. Rationale for teaching and learning Assemblage and Construction NTS, 1 a, p 12, 3 e, 3 k and 3 i, p 14.</p> <p>CLO 5. Vocations/Careers in Assemblage and Construction NTS, 1 a, p 12, 3 e, 3 k and 3 i, p 14.</p>			<p>3.1 Demonstrate knowledge and skills of techniques used in Assemblage and Construction.</p> <p>3.2 Use various materials and tools to Assemble and Construct. Sculpture pieces based on themes</p> <p>4.1 Discuss Rationale for teaching and learning Assemblage and Construction</p> <p>5.1 Classify Vocations/Careers in Assemblage and Construction</p> <p>5.2 Vocations/Careers in Assemblage and Construction</p>
<b>Course Content</b>	<b>Unit:</b>	<b>Topics:</b>	<b>Sub-topics:</b>	<b>Teaching and learning activities to achieve learning outcomes</b>
	1	Assemblage and construction	<ul style="list-style-type: none"> <li>• Concept of Assemblage and construction</li> <li>• Socio-Economic importance of Assemblage and construction</li> <li>• Tools and materials</li> <li>• Techniques in Assemblage and construction</li> <li>• Rationale for teaching and learning Assemblage and</li> </ul>	<p>Lecturer discusses the concept of Assemblage and construction</p> <p>Discuss Socio-Economic importance of Assemblage and construction</p> <p>Shows examples of tools and materials to the student teachers. These should be real tools and materials or pictures</p> <p>Demonstrate the technique of Assemblage and construction to the student teachers</p> <p>Student teachers practice such techniques</p> <p>Discuss the Rationales for teaching and learning Assemblage</p>

			<p>Construction</p> <ul style="list-style-type: none"> <li>• Vocations/Careers In Assemblage and Construction</li> </ul>	<p>and Construction</p> <p>Classify Vocations/Careers in Assemblage and Construction Discuss the Vocations/Careers in Assemblage and Construction</p> <p><b>Note:</b> detail of the topic must be conceded</p>
<p><b>Course Assessment Components (Educative assessment of, for and as Learning)</b></p>	<p><b>Assessment component I (formative):</b> Assess learning Outcomes: CLO unit 1</p> <p><b>Weighting:</b> Assignment 10%</p> <p>Presentation 10%</p> <p>Project 10%</p> <p>Quizzes 10%</p> <p><b>Assessment component II (summative):</b> Assess learning Outcomes: CLO unit 1</p> <p><b>Weighting:</b> Examination 60%</p>			
<p><b>Instructional Resource</b></p>	Text books, computer, projector, journals, wood, metals, glue etc.			
<p><b>Required Text (core)</b></p>	Brown, C. W. (2010). <i>The sculpting Techniques bible</i> . New Jersey, USA:Chartwell Books Inc.			
<p><b>Additional Readings</b></p>	<p>Dowson, J. (2012). <i>Making contemporary sculpture</i>. UK: Crowood press.</p> <p>Moszynska, A. (2013). <i>Sculpture now</i>. UK: Thames &amp; Hudson</p> <p>Williams, A. (1995). <i>Sculpture technique, form content</i>. United States of America: Davis Publication Inc.</p>			

## FIELD EXPERIENCE IN SCHOOLS III

### CONTEXT

During this semester, trainees will be taking a course in General Curriculum Studies. Therefore, for proper alignment of the College-based courses and their Field Experience, supported teaching in schools in the second year needs to consider issues related to the curriculum of the Lower Primary Level.

<b>Course Title</b>	<b>Field Experience in Schools III</b>						
<b>Course Code: EBS 291</b>	<b>Course Level: 200</b>			<b>Credit Value: 3</b>		<b>Semester: 1</b>	
<b>Pre-requisite</b>	<b>EBS 191and EBS 192</b>						
<b>Course Delivery</b>	<b>Face-to-Face</b> ✓	<b>Practical Activity</b> ✓	<b>Work-based Learning</b> ✓	<b>Seminars</b> ✓	<b>Independent Study</b> ✓	<b>e-learning Opportunities</b> ✓	<b>Practicum</b> ✓
<b>Course Description for significant learning (indicate NTS, NTECF, BSCGLE to be assessed)</b>	As the courses taken at the college level continue to expose students to critical aspects of what teachers need to know and be able to do concerning enactment of the curriculum. The school-based component of their training this year is aimed at giving trainees opportunities to continue to observe how Lower Primary teachers work with the curriculum. In addition, trainees will work with their mentors in deciding how to create a good and effective classroom environment and reflect and document their experience. Trainees should be encouraged to observe inherent gender stereotypes in some of the teaching learning resources and provide reflections on how to select and use basic curriculum materials in ways that will challenge gender stereotypes among pupils. <b>NTS 1 a, d, e, f &amp;g. NTECF: Pillar 4.</b>						
<b>Course Learning Outcomes: including INDICATORS for each learning outcome</b>	<b>OUTCOMES</b>			<b>INDICATORS</b>			
	By the end of semester, trainees will be able to: <b>NTS 1 a, d, e, f &amp;g. NTECF: Pillar 4.</b>						
	CLO 1: Demonstrate the ability to develop and use a field experience activity log <b>NTS 1 a, d, e, f &amp;g. NTECF: Pillar 4.</b>			1.1: Submit a detailed schedule of their school visits. 1.2: Produce, as part of the portfolio, a well-organized field experience log that shows activities undertaken in the school and the support received from their mentors. This			

				should also include reflections on their experience.
	CLO 2: Exhibit the ability to interact with students and teachers, including administrators of the school they are visiting <b>NTS 1 a, d, e, f &amp;g. NTECF: Pillar 4.</b>			2.1: Produce a handwritten journal that shows a record of dates, times and descriptions of their experiences with the different categories of people. 2.2: Describe aspects of the school culture such as the language of instruction in the classes visited
	CLO 3: Use a simple observation handout to observe lessons <b>NTS 1 a, d, e, f &amp;g. NTECF: Pillar 4.</b>			3.1: Submit a record of lessons observed using a simple observation guide. 3.2: Describe the physical environment of the class(es) visited such as the quality of posters, pictures or bulletin boards and what they depict. 3.3: Submit a summary description of the lessons observed highlighting how the teacher communicated with the class, strategies the teacher used to assess student understanding and resources, books, or materials used by the teacher. 3.3: Detail any special arrangements made by the teacher to support students with physical or learning challenges.
	CLO 4: Explain the key features of the school curriculum <b>NTS 1 a, d, e, f &amp;g. NTECF: Pillar 4.</b>			4.1: Submit a brief analysis of the Lower Primary curriculum focusing on the general objectives, mode of assessment, sequencing of the curriculum and curriculum alignment of the various subject 4.2: Describe the level of inclusiveness in the Lower Primary curriculum
<b>Course Content</b>	<b>Units</b>	<b>Topics</b>	<b>Subtopics</b>	<b>Teaching &amp; Learning Activities</b>
	1	College level Orientation	Orientation by College tutor on the purpose of and activities to be undertaken during this semester's STS	Use of PowerPoint and other visual representations to give students orientations on the activities to be undertaken during their school visits
	2	Lower Primary Curriculum	Essential features of the Lower Primary Curriculum	2.1: Trainees work with their mentors to discuss and document the essential features of the Lower Primary curriculum including, 2.1.1: the general objectives of the curriculum

				<p>2.1.2: the mode of assessment prescribed</p> <p>2.1.3: how the curriculum of one level progresses into the other</p> <p>2.2: Trainees placed in a particular school work in groups with their mentors to look closely at how the content of the various Lower Primary subjects are aligned with each other</p> <p>2.3: Evaluate the level of inclusiveness of the Lower Primary curriculum</p>
	3	Observation of lessons	Lesson observation using a simple observation guide.	<p>3.1: Observe the physical environment of the class(es) visited and record the quality of posters, pictures or bulletin boards and what they depict.</p> <p>3.2: Observe lessons taught by the class teacher taking note of strategies/pedagogies used in teaching and reflect on them.</p> <p>3.3: Observe the nature of student-teacher and student-student interactions and reflect on it.</p> <p>3.4: Observe and assess student response patterns reflect on it</p> <p>3.5: Observe how the mentor reacts to responses from students of the opposite gender</p> <p>3.6: Observe strategies the mentor uses to assess student understanding and resources, books, or materials used by the teacher reflect on them.</p> <p>3.7: Observe and record any special arrangements made by the mentor to support students with physical or learning challenges.</p> <p>3.8: Observe both girls and boys responses to teaching and learning in classroom enquiries</p> <p>3.9: Audit, review and evaluate the learning</p>

				resources in the classroom in terms of gender in textbooks, for example.
	4	Using models as thinking tools	Effective us of models in the classroom	4.1: Survey manipulatives available for use in the classroom 4.2: Observe and document how the mentor uses manipulative in their lessons 4.2: Assessing other manipulatives on the web, sharing and discussing their use with mentors and documenting activities developed from these with the mentor
	5	Using cooperative learning groups		5.1: Discuss and observe how to compose cooperative learning groups 5.2: Observe small groups at work 5.3: Develop guidelines for evaluating group work with mentors 5.4: Observe and evaluate group work using guidelines developed with mentors
	6	Finalization of trainees' portfolios		One week layover for trainees to finalize their portfolios for submission
	7	Trainee presentations		Provide opportunities for trainees to make presentations of their experiences. This should take the form of poster presentations
<b>Course Assessment Components: (Educative assessment of, for and as learning)</b>	<p><b>Component 1: Portfolio Assessment (NTS 1 a, e, &amp; f)</b> Trainees will be expected to develop portfolios detailing their interactions with students, their mentors and other teachers, the head of school, trainees personal experiences, descriptions of lessons they observed, and any activities undertaken in the school (see CLO 1 to 4). These portfolios will be assessed using rubrics developed to assess the quality of presentation and detail provided. The portfolio assessment will constitute 60% of trainee's score</p> <p><b>Component 2: Evaluation by mentors (NTS 1 d, e, f, &amp; g)</b> Trainees will be assigned who will work with them and guide them through out the period. These mentors will assess their mentees punctuality, regularity and attitudes to work, professionalism (including how they behave towards students with physical or learning challenges and interact with teachers and students) and willingness to support extra curricular activities</p>			



	of the school. The mentor's evaluation will constitute 40% of trainee's score
<b>Instructional Resources</b>	Projectors, Laptop Computers, Video Recordings and other Multimedia Resources, Files, Field Notebooks
<b>Required Text (Core)</b>	Manion L, Keith, R. B., Morrison, K., & Cohen, L. (2003). A guide to teaching practice. Available at <a href="http://www.books.google.com/books">http://www books.google.com/books</a> . Perry R 2004. Teaching practice for early childhood. A guide for students. Available at <a href="http://www.Routledge.com/catalogues/0418114838.pdf">http://www Routledge.com catalogues./0418114838.pdf</a> .
<b>Additional Reading List</b>	Kiggundu, E., & Nayimuli, S. 2009 Teaching practice: a make or break phase for student teachers <i>South African Journal of Education</i> , (29), 345-358. Menter I 1989. Teaching Stasis: Racism, sexism and school experience in initial teacher education. <i>British Journal of Sociology of Education</i> , 10:459-473.

**BACHELOR OF EDUCATION (JUNIOR HIGH SCHOOL EDUCATION) PROGRAMME**

**YEAR TWO**

**ENGLISH LANGUAGE STUDIES II**

**SEMESTER ONE**

**CONTEXT**

The goal of the course is to sustain an unwavering focus on developing knowledge, skills, pedagogy and essential understanding required of a good English teacher to teach English Language and Literature in English from Early Childhood through to the Junior High School in Ghana. The course is to equip the student-teacher with an understanding of contemporary theories, concepts and practices in English Studies and teaching in enhancing literacy. The English courses introduce the student-teacher to the basics of language acquisition skills as well development strategies. The skills: listening, speaking, reading and writing, are given premium throughout the student-teacher’s training. These skills are crucial for their academic endeavours, which they will further impart to the Ghanaian child. Though the current teacher training curriculum addresses it, intensifying it comes with numerous advantages to all stakeholders of Ghanaian education. The courses are designed in a manner that the sub-disciplines complement one another. There are ICT components imbedded in the teaching-learning activities to facilitate interactive and learner-focused approach. There is a symbiotic approach in the training of the teachers; as the trainees acquire these skills for personal use and also impart to the students.

The detailed course descriptions and objectives pay attention to the individual courses and attempt to draw synergy from “The National Teacher Education Curriculum Framework” and “National Teachers’ Standards for Ghana Guidelines”. The assessment portfolios would pay heed to Bloom’s Taxonomy of higher level questioning.

Course Title	English Language Studies II						
Course Code	EBS 207	Course Level:	200	Credit Value:	3	Semester	1
Pre-requisite	Students have been introduced to aspects of the course in EBS 135. This course builds on the knowledge acquired in EBS 135.						

Course Delivery Modes	Face -to –face [X]	Practical Activity <sup>2</sup>	Work-Based Learning <sup>3</sup>	Seminars <sup>4</sup>	Independent Study [X]	e-learning opportunities [X]	Practicum <sup>7</sup>
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	<p>This course offers further studies in grammar, comprehension and writing. The grammar topics will lay emphasis on subordination and co-ordination; types of sentences according to structure and function, and then direct and indirect speeches. Students will again be required to develop the skill of comprehending texts, using the context within which the text has been presented and also their own experiences. They will also be expected to read argumentative texts and extract meaning from them. Furthermore, they will be required to use their knowledge gained in these areas in communicating orally and in writing. The writing aspect of this course will focus on formal letters, argumentative essays and debates. This course will thus help students to use both their knowledge in grammar and writing, in presenting their assignments orally and in writing. This course will be delivered through whole class discussions, small group discussions, presentations as well as individual work. Student-teachers will be assessed through quizzes, short term project writing, assignments and examinations.</p> <p>NTS and NTECF requirements: NTS 1b, e, g,2b, c, f,3g, h, i, k NTECF 3, 5, and 7; p. 25.</p>						
Course Learning Outcomes <sup>8</sup> : including INDICATOR S for each learning outcome	Outcomes By the end of the course, the student will be able to:			Indicators			
	8. join clauses using appropriate coordinating, correlative and subordinating conjunctions. (NTS 2c, 3h, NTECF bullets 7, p. 25)			1.4.discuss what clauses are as a way of refreshing memory of the previous course. 1.5.Discuss and identify correlative, subordinating and coordinating conjunctions, linking knowledge gathered from the previous course. 1.6.Working in groups to discuss the kinds of sentences and the conjunction that could be used to join them.			
	9. identify the various sentence structures and use them in their writing. (NTS 1b,2c, h, NTECF bullets 5 and 7)			2.1. lead students to discuss the different sentence structures			
	10. answer questions based on expository and argumentative passages. (NTS 1b, 2c, h, NTECF bullets 5 and 7)			3.1 discuss the various sentence patterns 3.2 identify the patterns of given sentences. 3.3 write sentences to fit given patterns			

	11. generate sentences based on the basic sentence patterns. (NTS 1b, 2c, h, NTECF bullets 5 and 7)	4.1 discuss what formal letters are and their features 4.2 work in groups to generate ideas on a given formal letter. 4.3 work in groups to present a formal letter, incorporating all features of a formal letter. 4.4 discuss each group's letter in class to make it better.		
	12. write formal letters to appropriate offices and institutions. (NTS 1b, 2c, h, NTECF bullets 5 and 7)	5.1 discuss various kinds of passages (expository and argumentative) and answer questions on them, using skills learned in the previous course on comprehending texts.		
Course Content	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	1	1.Co-ordination and subordination	1. Coordination a. Joining clauses of equal rank b. Use of coordinating conjunctions	Discuss what clauses are as a way of refreshing memory of the previous course. Discuss the conjunction in joining two simple sentences. Then introduce the concept of coordination.
	2.	2. Sentence	2. Subordination a. Joining clauses of unequal rank b. Use of coordinating conjunctions	Discuss and identify correlative, subordinating and coordinating conjunctions, linking knowledge gathered from the previous course.
	3.	3. Active and Passive voices	3.Types of subordinate clauses: x. nominal xi. relative/adjectival xii. adverbial xiii. reason xiv. manner xv. purpose xvi. place xvii. time xviii. concession, etc.	Discuss the subordinating conjunctions Work in groups to discuss the kinds of sentences and the conjunction that could be used to join them.  Lead students to discuss the different sentence structures
	4.	4. Direct and		Discuss the various sentence patterns Identify the patterns of given sentences. In groups, let students write sentences to fit the

		Indirect (Reported speech)	<p>1.Mood</p> <ul style="list-style-type: none"> <li>a. declarative</li> <li>b. imperative</li> <li>c. exclamatory</li> <li>d. interrogative</li> </ul> <p>2. Structure</p> <ul style="list-style-type: none"> <li>a. simple</li> <li>b. compound</li> <li>c. complex</li> <li>d. compound complex</li> </ul> <p>3.Basic Sentence Patterns</p> <ul style="list-style-type: none"> <li>a. SV</li> <li>b. SVA</li> <li>c. SVC</li> <li>d. SVO</li> <li>e. ASVO</li> <li>f. SVOO, etc.</li> </ul>	<p>given patterns</p> <p>With illustrations, discuss the structure of the active voice. Discuss the structure of the passive voice</p> <p>Discuss the uses of the voices</p> <p>Guide students to make direct statements. Discuss the features of direct statements. Guide them to convert the direct statements to indirect. Discuss the salient features of indirect statements and others.</p>
5.	6.	5.Error Analysis		<p>Let students brainstorm on the word. Provide illustrative sentences to guide students in discussing the concepts Write sentences with errors. Let students discuss the errors. Introduce and discuss the concepts. With word game, guide students in spelling</p>
		13. Writing	<p>1.The Active Voice - features: Subject, followed by verb and object, etc.</p> <p>2.The Passive Voice – features: a. changes that take place in the verb, position of subject and object, etc.</p> <p>3. Uses of the active and passive voice</p>	<p>Discuss what formal letters are and their features</p> <p>Guide students to work in groups to generate ideas on a given formal letter and present a formal letter, incorporating all features of a formal letter. Discuss each group’s letter in class to make it better.</p>
7		7.Argumentative Essay/Debate	<p>1. Features of Direct Speech – use of quotation marks, etc.</p> <p>2. Features of Indirect (Reported)</p>	<p>Provide scenarios for students to describe the kind of argumentation. Discuss argumentation and types.</p>

	8	8.Comprehension	<p>speech</p> <ol style="list-style-type: none"> <li>1.Ambiguity</li> <li>2.Dangling and Misplaced modifiers</li> <li>3. Concord errors <ul style="list-style-type: none"> <li>- Error of preposition</li> </ul> </li> <li>4. Spelling errors, etc.</li> </ol> <ol style="list-style-type: none"> <li>1.Formal Letter Writing <ol style="list-style-type: none"> <li>a. Formal letters <ol style="list-style-type: none"> <li>i. letters to the press,</li> <li>ii. for employment,</li> <li>iii. education offices</li> </ol> </li> </ol> </li> <li>2.Features <ol style="list-style-type: none"> <li>a. address, date, salutation, heading,</li> <li>b. Body – introduction, development and conclusion</li> </ol> </li> </ol> <p>(Attention should be paid to letters for study leave, promotion/upgrading, transfer, maternity leave, etc.)</p> <ol style="list-style-type: none"> <li>1.Types of Argumentative Essay</li> <li>2. Features of a Debate <ol style="list-style-type: none"> <li>a. Introduction <ol style="list-style-type: none"> <li>i. vocative</li> <li>ii. declaring purpose and motion <ol style="list-style-type: none"> <li>viii. debating the points raised by the other side</li> <li>ix. presentation of points raised by the other side</li> </ol> </li> <li>x. raising points for your side</li> <li>xi. support points with facts &amp;</li> </ol> </li> </ol> </li> </ol>	<p>Guide students to discuss the features of debate</p> <p>Discuss various kinds of passages (expository and argumentative) and answer questions on them, using skills learned in the previous course on comprehending texts.</p>
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			<p>figures</p> <p>xii. conclusion</p> <p>Comprehension based on expository and argumentative texts</p>	
Course Assessment Components <sup>9</sup> : (Educative assessment of, for and as learning)	Component 1: Formative assessment (40%) Summary of assessment methods: Group project on the types of essay (10%); Individual assignments- coordination and subordination (10%); and a quiz – sentence, error analysis and comprehension (20%) Assessing Learning Outcomes: 1, 2, 3, 4 and 5.			
	Component 2: Summative assessment: (60%) End of semester examination on units 1 – 8 to develop core skills such as knowledge application, personal development. The examination will adopt varied approaches; from short answer questions to essay questions. Assessing Learning Outcomes: 1, 2, 3, 4 and 5.			
Instructional Resources	Projector and computer, mobile phones, sampled expository and argumentative passages			
Required Text (core)	Quirk, Randolph, Greenbaum, Sidney et al. (1985). <i>A comprehensive grammar of English language</i> . Essex: Longman.			
Additional Reading List <sup>10</sup>	<p>Cobuild, (1990). <i>English grammar</i>. London: Harper Collins.</p> <p>Cobuild, (1992). <i>English usage</i>. London: Harper Collins.</p> <p>Clouse, B. F. (1997). <i>Transitions: From reading to writing</i>. Boston: McGraw-Hills.</p> <p>Crystal, D. (1998). <i>The Cambridge encyclopaedia of language</i>. Cambridge: CUP.</p> <p>Johnson, K. (1982). <i>Communicate in writing</i>. Essex: Longman.</p> <p>Leech, G. (1989). <i>English grammar and usage</i>. London: Edward Arnold.</p> <p>Ploeger, K.M. (1999). <i>Simplified writing skills</i>. Illinois: NTC Publishing Group. Press.</p> <p>Rozakis, L. E. (2003). <i>Grammar and style</i>. Indiana: Alpha Books.</p>			

## STUDIES IN DRAMA (COMEDY & TRAGEDY)

Course Title	Studies in Drama (Comedy & Tragedy)						
Course Code	EBS 223	Course Level:	200	Credit Value:	3	Semester	1
Pre-requisite	Students have been watching dramatic performances						
Course Delivery Modes	Face -to – face X	Practical Activity <sup>2</sup>	Work-Based Learning <sup>3</sup>	Seminars X	Independent Study X	e-learning opportunities X	Practicum <sup>7</sup>
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	<p>The course introduces students to the study of drama. The definition of drama, differences between drama and the other genres as well as types of drama will be discussed. The focus of this course is on the peculiar features of drama, including dialogue, action, multimedia elements, types of drama, etc. The course will also examine some theories of drama and explore the following features: character and characterization, plot, setting, themes, etc. that the dramatic text shares with other genres in Literature. Students will be expected to read recommended texts and analyse them. Just like the other literature courses already described, this course will once more equip the student-teacher to gain the needed professional knowledge that will be used to engage the pupil in relevant discourse. The course will be delivered through whole group discussions, small group discussions, assignments, presentations. Assessment will be done through quizzes, projects, group presentations and examination. The course fulfils the following NTS and NTECF requirements. NTS 2 c, f 3 e,f, i NTECF 3,4, 7, 8 and 12; p. 25.</p>						
Course Learning Outcomes <sup>8</sup> : including INDICATORS for each learning	<p>Outcomes</p> <p>By the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. identify and describe types of drama. (NTS 2c, 3e, i NTECF bullet 3, p. 25)</li> <li>2. establish the differences between drama and other genres. (NTS 2c, 3e, i NTECF bullet 3, p.25)</li> </ol>				<p>Indicators</p> <ol style="list-style-type: none"> <li>1.1 discuss the features of drama</li> <li>1.2 identify the types of drama</li> <li>1.3 describe each type of drama identified</li> <li>2.1 discuss the distinguishing features between drama and the other genres of</li> </ol>		



outcome	<p>3. identify the types of comedy and tragedy. (NTS 2c, 3e,i NTECF bullet 4, 7, p. 25)</p> <p>4. state the functions of comedy and tragedy as interaction of characters in the society. (NTS 2c, f, 3f, NTECF bullet 4, 5, and 8)</p> <p>5. describe the characteristics of comedy and tragedy. (NTS 2c, NTECF bullet 3, and 7, p.25)</p>			<p>literature.</p> <p>3.1 identify the elements of drama</p> <p>3.2 discuss the features of comedy and tragedy</p> <p>4.1 discuss the functions of comedy and tragedy</p> <p>4.2 use the internet to research into the functions of comedy and tragedy and relate these to the texts being read.</p> <p>5.1 use the internet to find out about the characteristics of comedy and tragedy, and relate these to the texts being read.</p>
Course Content	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	1.	1. Introduction to Drama	1. What is Drama? 2. Differences of drama from other genres	<p>Discuss the dramatic genre</p> <p>Discuss the distinguishing features between drama and the other genres of literature.</p> <p>Identify the types of drama</p> <p>Describe each type of drama identified guided by Aristotle's <i>Poetics</i> etc.</p> <p>Identify and discuss the elements of drama.</p> <p>Draw the similarities and dissimilarities between dramatic form and other literary genres</p> <p>Discuss the features of comedy</p>
	2.	2. Elements of drama	3. Types of drama a. comedy b. tragedy c. tragi-comedy	
	3.	3.Comedy	Elements of drama a. theme b. setting c. plot d. technique	

	4	4. Introduction to selected texts	<ul style="list-style-type: none"> <li>e. character</li> <li>f. dialogue</li> <li>g. convention</li> <li>h. genre</li> <li>i. audience</li> <li>j.</li> </ul> <p>1. What is comedy?</p> <ul style="list-style-type: none"> <li>a. What is the function of comedy?</li> <li>b. Types of comedy <ul style="list-style-type: none"> <li>i. comedy of humours</li> <li>ii. comedy of manners</li> <li>iii. romantic/comedy sentimental</li> <li>iv. satirical comedy</li> <li>v. farce</li> <li>vi. black comedy</li> </ul> </li> <li>c. Characteristics of comedy <ul style="list-style-type: none"> <li>i. love and sex</li> <li>ii. stock characteristics and situations</li> <li>iii. everyday speech</li> <li>iv. happy ending</li> <li>v. Comic heroes</li> <li>vi. Comic plots</li> </ul> </li> <li>d. Types and characteristics of Tragedy</li> </ul>	<p>Discuss the functions of comedy</p> <p>Discuss the types and characteristics of comedy</p> <p>Discuss the types and characteristics of comedy</p> <p>Task students to search for information on the playwrights Discuss the elements of drama in the texts.</p>
	5.	Response to the texts	<p>1. Brief background of the authors</p>	<p>Guide students to examine the nature and essence of the language and structure of the text Identify the literary devices for discussion</p> <p>Guide students to orally discuss their views on the genre and the texts.</p>

			<ol style="list-style-type: none"> <li>2. Literary elements in selected texts <ol style="list-style-type: none"> <li>a. Setting</li> <li>b. Plot</li> <li>c. Characterization <ol style="list-style-type: none"> <li>i. What is characterization</li> <li>ii. Major characters</li> <li>iii. Minor characters</li> </ol> </li> <li>d. Study of themes <ol style="list-style-type: none"> <li>i. major theme(s)</li> <li>ii. minor theme(s)</li> <li>iii. related ideas</li> </ol> </li> </ol> </li> <li>3. Techniques <ul style="list-style-type: none"> <li>➤ Structure</li> </ul> </li> <li>4. Language use <ol style="list-style-type: none"> <li>a. use of prose</li> <li>b. use of verse</li> <li>c. dialogues</li> <li>d. literary devices (imagery, symbolism, etc.)</li> </ol> </li> <li>5. Comic elements in the texts</li> </ol>	
<p>Course Assessment Components<sup>9</sup> : (Educative assessment of, for and as learning)</p>	<p>Component 1: Formative assessment (40%)  Summary of assessment methods: Individual assignments- concept of elements of drama (10%); class participation (evidence of having read the text) (10%); group presentation- an element of the texts (10%) and a quiz – discussing the comic/tragic nature of the texts (10%)  Assessing Learning Outcomes: 1, 2, 3, 4 and 5.  Component 2: Summative assessment: (60%)  End of semester examination on units 1 – 5 to develop core skills such as knowledge application and personal development. The examination will adopt varied approaches; from short answer questions to essay questions.  Assessing Learning Outcomes: 1, 2, 3, 4 and 5.</p>			

Instructional Resources	Audio-visuals, Projector and computer
Required Text (core)	Minot, S. (1993). <i>The three genres</i> . New Jersey: Patience Hall.
Additional Reading List <sup>10</sup>	<p>Bret, R. L. (1978). <i>An introduction to English studies</i>. London: Edward Arnold.</p> <p>DiYanni, R. (2003). <i>Literature: Approaches to Fiction, Poetry, and Drama</i>. USA: McGraw Hill.</p> <p>Mayhead, R. (1981). <i>Understanding literature</i>. Cambridge: C.U.P.</p> <p>Mcalinda, T. (2002) “What is Shakespearean Tragedy? <i>Cambridge Companion to Shakespearean Tragedy</i>. Ed. Claire McEachern. UK: CUP [23-49].</p> <p>Torto R. T. (2014). <i>General knowledge of literature: Introduction to literary devices, terms and concepts</i>. (revised edition) Cape Coast: Nyakod Printing Works.</p> <p>Study texts will be selected through the classic to modern Africa.</p>

## THE SENTENCE AND ITS PARTS

<b>Course Title</b>	<b>The Sentence and its Parts</b>						
<b>Course Code</b>	<b>EBS 290</b>	<b>Course Level</b>	<b>200</b>	<b>Credit Value</b>	<b>3</b>	<b>Semester</b>	<b>1</b>
<b>Pre-requisite</b>	Students have knowledge of English Language studies						
<b>Course Delivery Modes</b>	Face -to -face X	Practical Activity <sup>2</sup>	Work- Based Learning <sup>3</sup>	Seminars X	Independent Study X	e-learning opportunities X	Practicum <sup>7</sup>
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	<p>This course aims at introducing students to the sentence, considering the classification of the sentence in terms of structure and function. This course will expose students to the structure of the simple sentence, the compound sentence as well as the complex sentence. The course will again expose the students to the communicative/traditional function of the sentence, helping students to use sentences to perform different communicative functions. This course will again introduce students to the phrase which forms part of the sentence. Students will have the advantage of getting to know the different types of phrases and the functions they perform. The knowledge gained in this course will help students to acquire the skills to write better essays and to teach their pupils at the basic level better. Student-teachers, who enroll on this course, will have the opportunity of taking part in non-participant observations in primary and junior high classrooms, to observe how teachers teach these concepts to pupils, so as to identify challenges teachers encounter in teaching grammar. Information gathered will be useful to students who intend to conduct action research later. The mode of delivery for this course will be discussions, presentations, group work and individual work. Students will be required to bring on board their personal experiences for discussions as well. Assessment will be done through quizzes, report writing, assignments and examinations. The course is in line with NTS 1a, 1b, 2c, NTECF bullets 1,3,5, and 7; p. 25.</p>						
<b>Course Learning Outcomes <sup>8</sup>: including INDICATORS for each learning</b>	Outcomes By the end of the course, the student will be able to:				Indicators		
	1. identify phrases is in context (NTS 2c (NTECF bullet 3, 5,7, p. 25)				4.1	explain the phrase using a context.	
				4.2	2.1 discuss the types of phrases		
				4.3	2.2 identify phrases in context		

<b>outcome</b>				4.4 Discuss the functions of phrases
	5. define a sentence. (NTS 1a, b, NTECF bullets 1, and 7, p. 25)			2.1 define a sentence 2.2 identify the elements of the sentence
	6. discuss the classification of the sentence in terms of structure. (NTS 2c, NTECF bullet 12, p. 25)			3.1 classify a sentence in terms of structure
	7. discuss the classification of the sentence in terms of function. (NTS 2c, NTECF bullet 12, p. 25)			4.1 discuss the functions of the sentence
<b>Course Content</b>	<b>Units</b>	<b>Topics:</b>	<b>Sub-topics (if any):</b>	<b>Teaching and learning activities to achieve learning outcomes</b>
	<b>1</b>	The Phrase	1. Definition of the phrase  2. Types of phrases <ul style="list-style-type: none"> <li>• The Noun Phrase</li>   <li>• The Verb Phrase</li>   <li>• Adjective phrase</li> </ul>	Using various contexts, let students come up with their definition of the phrase.  Discuss the noun phrase Discuss the structure of the noun phrase Discuss the functions of the noun phrase Identify noun phrases in context  Let students brainstorm on the verb phrase Discuss the structure of the verb phrase Let students identify the verb phrase in context.  Lead students in a discussion of the Adjective phrase Discuss the structure of the Adjective phrase Lead students to discuss the functions of the Adjective phrase  Let students identify Adjective phrases in context

			<ul style="list-style-type: none"> <li>• The Adverb phrase</li>   <li>• Preposition phrase</li> </ul>	<p>Lead students to discuss the Adverb phrase. Identify the structure of the Adverb phrase. Discuss the various Adverb phrases in context (Time, manner, place).</p> <p>Discuss the preposition phrase Discuss the structure of the preposition phrase Lead the students of the functions of the proposition phrase Identify preposition phrases in context</p>
			<p>1.The simple sentence</p> <p>2.The compound sentence</p> <p>3.The complex sentence</p> <p>4.The communicative function of the sentence</p>	<p>Discuss the elements of the simple sentence dwelling on the number and type of clause(s) within the sentence. Let students construct various examples of simple sentences</p> <p>Engage students in a discussion of the compound sentence. Lead students to identify and describe the clauses in given compound sentences and in given passages. Let students construct their own examples of compound sentences.</p> <p>Lead students in a discussion of the complex sentence Let students identify and describe the clauses in given complex sentences and in given passages. Let students construct their own examples of the complex sentences.</p>

			<p>1.The Declarative Sentence</p> <p>2.The Interrogative Sentence</p> <p>3.The Imperative Sentence</p> <p>4.Exclamatory Sentence</p>	<p>Discuss the declarative sentence. Let students identify the features of the declarative sentence. Let students cite various examples of the declarative sentence.</p> <p>Discuss the imperative sentence. Let students identify the features of the imperative sentence. Let students cite various examples of the imperative sentence.</p> <p>Discuss the exclamatory sentence. Let students identify the features of the exclamatory sentence. Let students cite various examples of the exclamatory sentence.</p>
<p><b>Course Assessment Components<sup>9</sup> : (Educative assessment of, for</b></p>	<p><b>Component 1: Formative assessment (40%)</b> Summary of assessment methods: Individual assignments- types of phrases (10%); group presentation of observation reports (10 %); and 2 quizzes – Phrases and The communicative function of the sentence (20%) Assessing Learning Outcomes: 1, 2, 3, and 4.</p> <p><b>Component 2: Summative assessment: (60%)</b></p>			



<b>and as learning)</b>	End of semester examination on units 1 – 2 to develop core skills such as knowledge application and personal development Assessing Learning Outcomes: 1, 2, 3, and 4.
<b>Instructional Resources</b>	Projectors and computers, Audio-visuals and Phones and sample passages.
<b>Required Text (core)</b>	Nunan, D. (2003). Practical English language teaching. New York: McGraw-Hill.
<b>Additional Reading Lists</b>	Crystal, D. (2000). Cambridge encyclopedia of language. (2nded.). Cambridge: Cambridge University Rozakis, L. E. (2003). Grammar and style. Indiana: Alpha Books. Sakyi-Baidoo, Y. (2005). Effective learning and communication. Accra: Akonta Publications. Takor, D. (1999). Semantics. New Delhi: Bharati Bhawan. Yule, G. (1996). The study of language. (2nded.). Cambridge: CUP.

## **NATURE OF MATHEMATICS**

### Context

The mathematics curriculum provides student teachers with a background in the theory and application of the content needed to understand the underlying structure and nature of mathematics.

In addition, it exposes student teachers to the content knowledge needed in preparing them sufficiently to teach mathematics beyond what they will be expected to teach at the basic education level.

The demands of rapid change in an information- based society today have influenced mathematics programs in various ways. The skills needed for jobs require thoughtful workers who are oriented to problem solving, irrespective of their gender, cultural and socio- economic backgrounds. By studying mathematics, students are taught to reason, to analyze, to think for themselves, while it imparts confidence in their own reasoning powers, and strengthens their mental faculties. Students need to use rules and thought processes of mathematics along with facts, to develop a reasoning pattern that will translate to their everyday lives, making them better thinkers and problem solvers.

It is important for students to view mathematics as a significant part of our culture, not only for its valuable scientific applications but also for its enrichment of our cultural life.

This mathematics course is, therefore, intended to equip student teachers with the knowledge, skills and values needed to teach mathematics to basic school pupils in everyday life context. Besides, it provides the requisite resource material for preparing student teachers to teach mathematics sufficiently and effectively in our basic schools.

Course Title	NATURE OF MATHEMATICS						
Course Code	EBS 289	Course Level:	200	Credit Value:	3	Semester	1
Pre-requisite	Algebra I, Algebra II, Geometry and Trigonometry, Trigonometry						
Course Delivery Modes	Face -to -face <sup>1</sup> ✓	Practical Activity <sup>2</sup> ✓	Work-Based Learning <sup>3</sup> ✓	Seminars <sup>4</sup> ✓	Independent Study <sup>5</sup> ✓	e-learning opportunities <sup>6</sup> ✓	Practicum <sup>7</sup> ✓
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	The objective of this course is to lead students to appreciate the historical development of mathematics from the major older philosophical schools of thought, as well as the basis of classical proofs in mathematics. It will also expose students to Fallibilists and Absolutists views of mathematical knowledge. The course will introduce students to definitions of mathematics, the nature of mathematical knowledge, historical development of some branches of mathematics and the older philosophies of mathematics. Particular philosophies to be covered include the philosophies of Kant, Plato, Aristotle, and Leibnitz. Also included are the Absolutists philosophical schools of thought and the Fallibilists opposed to them, as well as proofs in mathematics. The approaches that would be used in the delivery of this course should prepare trainees to ensure the learning progress of all students by projecting gender roles and issues relating to equity and inclusivity. (NTECF Pillar 1, expectations 2, 3, 5, 6, 7; Pillar 2, Pillar 3; cross-cutting page 39, expectation 1, Core and Transferable skills p.46).						
Course Learning Outcomes <sup>8</sup> : including INDICATORS for each learning outcome	Outcomes By the end of the course, the student will be able to:			Indicators			
	3. demonstrate a sound knowledge of the topics and apply them in real life situations; (NTS 1a, b; 2c)			<ul style="list-style-type: none"> <li>– explain what mathematics is and its importance as a tool for the sciences and other disciplines;</li> <li>– explain the main features of the development of some branches of mathematics;</li> <li>– Justify the stand that all abstract mathematics has its root in the physical world;</li> </ul>			
	4. apply the knowledge acquired to the teaching of mathematics at the basic			<ul style="list-style-type: none"> <li>– relate the philosophies of mathematics to classroom practices.</li> </ul>			

	school level; (NTS 1a, b; 2c)			
Course Content	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	1	Definition of mathematics	What is mathematics?, Mathematics and science, Cycle of investigations	Use brainstorming sessions to discuss various definitions of mathematics with students. Encourage students to do independent research on definitions of mathematics Use relevant situations to explain the cycle of investigations in mathematics that teachers must engage their learners in.
	2	Some Mathematics Education Terms	Mathematical Axioms, Conjecture, and Theorems (Binomial, Pythagorean), Mathematical Operations, Mathematical Algorithms (HMMDIA, FOIL, BEDMAS), Paradoxes	Use brainstorming sessions and relevant situations to explain the various mathematics education terminologies such as Axioms, conjectures, theorems (such as Binomial theorem, Pythagorean Theorem), and antinomies (paradoxes) in mathematics (such as Barber's Paradox, Epimenides' Libel, Russell Paradox, Galileo's Paradox, Achilles and the Tortoise, Lazy-bones Paradox, The Law teacher and his graduate).  Provide suitable opportunities for students to explain Mathematical operations such as Addition, Subtraction, Multiplication, Division, Square Roots and Cube Roots). Discuss various Mathematical Algorithms (e.g., HMMDIA, FOIL, BEDMAS),

	3	Historical development of Number and Algebra	Numeration Systems - (Egyptian, Babylonian, Roman, Hindu-Arabic) Basic Properties of Natural Numbers, Figurative numbers, Development of Algebra (Egypt and Babylonia, The Greeks, The Hindus and Arabs, Boolean Algebra, Algebraic Equations)	<p>Engage students in group research to gather information on the ancient numeration systems. Employ presentation strategy to discussion the development of Egyptian, Babylonian, Roman and Hindu-Arabic Numeration Systems.</p> <p>Engage students in practical activities to discuss the basic Properties of Natural Numbers (Odd and Even, Prime and Composite). Discuss the use of the Sieve of Eratosthenes for determining prime numbers and how to apply Prime Factorization in finding Lowest Common Multiple and Highest Common Factors of given set of natural numbers, Involve students in activities to investigate and distinguish among Figurative numbers (Perfect, Abundant, Deficient, Polite, Amicable Numbers) Assign students in groups to research into the Development of Algebra and the roles of the Egyptians and Babylonians, the Greeks, the Hindus and Arabs in its development.</p>
	4	Historical development Geometry and logic	Development of Geometry (Euclid's Five Postulates, Critics of Euclidian Geometry, Modern Geometry- Transformation, Congruent and Similar Figures, Development of Logic.	<p>Discuss the historical development of Geometry including Euclid's Five Postulates, Critics of Euclidian Geometry, Modern Geometry Provide opportunities for students to explore properties of transformation of plane shapes including Congruent and Similar Figures, symmetries</p> <p>Discuss with students the development of Logic including Leibniz, Aristotelian logic, etc</p>

	5	Philosophy of Mathematics	Plato, Platonism, Formalism, Intuitionism, Absolutism, Fallibilism, Kant's Philosophy, Aristotle, Leibniz	Use brainstorming to explain the philosophical views of Plato, Kant, Aristotle, Leibniz Discuss formalism, intuitionism, absolutism, and fallibilism
	6	Proofs in Mathematics	Definition of Proof, Inductive Reasoning, Proof by Mathematical Induction, Deductive Reasoning	Discuss definition of proof in mathematics Brainstorm with students the major differences between inductive and deductive reasoning. Discuss Peano's postulates and the conditions necessary for proof by Mathematical induction and engage students in activities involving proof by Mathematical induction
Course Assessment Components <sup>9</sup> : (Educative assessment of, for and as learning)	Component 1: Formative Assessment (Individual and Group presentations) <b>Summary of Assessment Method:</b> Critical Thinking, problem solving skills, creative and innovative skills, life-long learning/ personal skills, collaborative/ social skills, communication skills, literacy and numeracy skills, leadership skills, digital literacy/ICT skills (NTECF p. 45) • Presentations Weighting (10%) Assesses Learning Outcomes: CLO 1 (Units 1, 3 and 6)			
	Component 2: Formative Assessment <b>Summary of Assessment Method:</b> Critical Thinking, problem solving skills, creative and innovative skills (NTECF p. 45) • Assignments • Class exercises • Quizzes Weighting (30%) Assesses Learning Outcomes: CLO 1 & 2 (Units 1, 2, 3 and 4)			
	Component 3: Summative Assessment <b>Summary of Assessment Method:</b> End of Semester Examinations Unit 1 – 5 (Core skills to be developed: Critical Thinking, problem solving skills, creative and innovative skills (NTECF p. 45)) Weighting (60%) Assesses Learning Outcomes: CLO 1 & 2 (Units 1, 2, 3, 4, 5 and 6)			

Instructional Resources	
Required Text (core)	Sokpe, B. Y. & Osiakwan, J. K. (2015). <i>Nature of mathematical</i> . Cape Coast: University Press
Additional Reading List <sup>10</sup>	Ernest, P. (1991). <i>The philosophy of mathematics education</i> . UK, Falmer Press. Skemp, R. R. (1987). <i>The psychology of learning mathematics</i> . Hillsdale, NJ: Lawrence Erlbaum Associate Inc. Publishers. Sokpe, B. Y. & Osiakwan, J. K. (2016). <i>Mathematical investigations</i> . Cape Coast: University Press Van de Walle, J. A. (2016). <i>Elementary and middle school mathematics Teaching developmentally</i> (9 <sup>th</sup> ed.). New York: Pearson/Longman.

## ALGEBRAIC THINKING

The course provides student teachers with pedagogical content knowledge needed to in the teaching and learning mathematics. In addition, it exposes student teachers to the content knowledge needed in preparing them sufficiently to teach mathematics beyond what they will be expected to teach at the basic education level. The demands of rapid change in information- based society today have influenced mathematics programs in various ways. The skills needed for jobs require thoughtful workers who are oriented to problem solving, irrespective of their gender, cultural and socio- economic backgrounds. By studying mathematics, students are taught to reason, to analyse, to think for themselves, while it imparts confidence in their own reasoning powers, and strengthens their mental faculties. Students need to use rules and thought processes of mathematics along with facts, to develop a reasoning pattern that will translate to their everyday lives, making them better thinkers and problem solvers. It is important for students to view mathematics as a significant part of our culture, not only for its valuable scientific applications but also for its enrichment of our cultural life. This mathematics curriculum is, therefore, intended to equip student teachers with the knowledge, skills and values needed to teach mathematics to basic school pupils in everyday life context. Besides, it provides the requisite resource material for preparing student teachers to teach mathematics sufficiently and effectively in our basic schools.

<b>Course Title</b>	<b>ALGEBRAIC THINKING</b>						
<b>Course Code</b>	<b>EBS 210</b>	<b>Level: 200</b>	<b>Credit value: 3</b>			<b>Semester: 1</b>	
<b>Pre-requisite</b>	<b>Study of Elective Mathematics at Senior High School</b>						
<b>Course Delivery Modes</b>	<b>Face-to-face</b> <input checked="" type="checkbox"/>	<b>Practical Activity</b> <input type="checkbox"/>	<b>Work-Based Learning</b> <input type="checkbox"/>	<b>Seminars</b> <input checked="" type="checkbox"/>	<b>Independent Study</b> <input checked="" type="checkbox"/>	<b>e-Learning opportunities</b> <input checked="" type="checkbox"/>	<b>Practicum</b> <input type="checkbox"/>
<b>Course Description (indicate NTS, NTECF, BSC GLE)</b>	This course is designed to expose students to the various elements of algebraic thinking necessary for the prospective teacher to be able to promote meaningful teaching and learning of algebra in schools. The course will generally expose students to the three main components of algebraic thinking namely; generalization, equality and unknown quantities.						



<b>to be addressed)</b>	<p>Students will also be introduced to the moves/strategies for teaching each of the following algebraic concepts for conceptual understanding: Algebra of sets, relation, mapping and functions, equivalence relation, properties of integers linear and exponential series, intuitive treatment of convergence and divergence of series: - the comparison of ratio and root test; partial fractions and mathematical Induction. The approaches that would be used in the delivery of this course would prepare trainees to ensure the learning progress of all students by projecting gender roles and issues relating to equity and inclusivity.</p> <p><i>(NTS: 2c, 2e, 3a, 3b, 3c, 3d, 3e, 3h, 3i, 3k, 3n, 3p/ NTECF: Pillar 1, &amp; 3.</i></p>	
<b>Course Learning Outcomes</b>	<p><b>Outcomes</b></p> <p>On successful completion of the course, Student Teachers will be able to:</p>	<p><b>Indicators</b></p>
	<p>CLO 1. demonstrate understanding of generalization in algebraic function <i>NTS: 2e/NTECF: Pillar 1</i></p>	<p>1.1. Explain the elements of generalization in algebraic thinking</p>
	<p>CLO 2. demonstrate understanding of the purpose and use of equality in algebraic thinking <i>NTS: 2a&amp;3j/NTECF: Pillar 1&amp;3</i></p>	<p>2.1. Explain the purpose and use of equality in algebraic thinking</p>
	<p>CCLO 3. demonstrate understanding of the purpose and use of unknown in algebraic expressions and equations. <i>NTS: 2c, 2e/NTECF: Pillar 1&amp;3</i></p>	<p>3.1.Explain the purpose and use of the unknown in algebraic expressions and equations</p>
	<p>CLO 4. demonstrate the use of algebraic thinking in analysing the conceptual structures of selected topics in algebra</p>	<p>4.1.Analyse the conceptual structure of algebra of surds, relations and functions and other topics covered in the course</p>

	<i>NTS: 2c, 2e/NTECF: Pillar 1-3</i>			
	CLO 5. demonstrate the understanding of the moves in teaching each of the topics in algebra covered in the course. <i>NTS: 2c, 2e/NTECF: Pillar 1&amp; 3</i>		5.1. Outline and explain the moves involved in teaching the algebra topics covered in the course.	
<b>Course Content</b>	<b>Units</b>	<b>Topics:</b>	<b>Sub-topics (if any):</b>	<b>Teaching Learning Activities</b>
	<b>1</b>	Components of algebraic thinking	<ul style="list-style-type: none"> <li>• Elements of generalization, equality and unknown quantities.</li> </ul>	<ul style="list-style-type: none"> <li>• Discussion on the distinction between generalization, equality and unknown quantities</li> </ul>
	<b>2</b>	Algebra of sets	<ul style="list-style-type: none"> <li>• Moves for teaching union and intersection of sets, subset and power set, properties of operation on sets.</li> </ul>	<ul style="list-style-type: none"> <li>• Engage students in real life situations to have a direct purposeful experience of union and intersection of sets, subset and power set, properties of operation on sets and apply the knowledge to solve real life problems</li> </ul>
	<b>3</b>	Relations, mappings functions and Equivalence relations	Moves for teaching <ul style="list-style-type: none"> <li>• Relations</li> <li>• Mapping</li> <li>• Function</li> <li>• Equivalence relations</li> </ul>	<ul style="list-style-type: none"> <li>• Engage students in real life situations to have a direct purposeful experience to distinguish between relations, mapping, function, and equivalence relations and apply the knowledge to solve real life problems</li> </ul>
	<b>4</b>	Properties of integers	Moves for teaching properties of integers	<ul style="list-style-type: none"> <li>• Engage students in real life situations to identify the properties of integers and apply the knowledge to solve real life problems</li> </ul>
	<b>5</b>	Linear and exponential series	Moves for teaching <ul style="list-style-type: none"> <li>• Arithmetic and geometric sequences and series</li> <li>• Infinite geometric sequences</li> <li>• Recursively defined sequences</li> </ul>	<ul style="list-style-type: none"> <li>• Make presentations on arithmetic and geometric sequences and series, infinite geometric sequences, recursively defined sequences, finding the <math>N^{\text{th}}</math> term of linear and exponential sequences and sum of linear and exponential sequences</li> </ul>

		<ul style="list-style-type: none"> <li>Finding the <math>N^{\text{th}}</math> term of linear and exponential sequences</li> <li>Sum of linear and exponential sequences</li> </ul>	
6	Convergence and divergence series	Moves for teaching <ul style="list-style-type: none"> <li>Convergence and divergence of series (Intuitive treatment-ratio and the root test)</li> </ul>	<ul style="list-style-type: none"> <li>Use the “learn together” method to present Convergence and divergence of series (Intuitive treatment-ratio and the root test)</li> </ul>
7	Partial fractions	Moves for teaching <ul style="list-style-type: none"> <li>Separating algebraic fractions into its partial fractions</li> </ul>	<ul style="list-style-type: none"> <li>Use the “learn together” method to present partial fractions</li> </ul>
8	Mathematical induction	Moves for teaching <ul style="list-style-type: none"> <li>Proof by Mathematical Induction</li> </ul>	<ul style="list-style-type: none"> <li>Students to research on Peano’s Postulates and proof by Mathematical Induction</li> <li>Students record finding on the Peano’s Postulates and proof by Mathematical Induction in their journals</li> <li>Students present findings on Peano’s Postulates and proof by Mathematical Induction</li> <li>Students solve problems on Proof by Mathematical Induction.</li> </ul>
<b>Course Assessment</b>	<b>Component 1: Written</b>		
	<p><b>Summary of Assessment Method:</b>          A combination of any of these assessment modes;</p> <ol style="list-style-type: none"> <li>i. Tests/quizzes and class exercises to examine student-teachers’ knowledge on algebraic thinking</li> <li>ii. Assignments, group work on algebraic thinking</li> </ol> <p><b>Weighting: 20 %</b>  <b>Assesses Learning Outcomes: CLO1, CLO2, CLO3</b></p>		
	<b>Component 2: Portfolio Assessment</b>		

	<p><b>Summary of Assessment Method:</b></p> <ul style="list-style-type: none"> <li>i. Create e-portfolios to contain reports of their research</li> </ul> <p><b>Weighting: 20%</b>  <b>Assesses Learning Outcomes: CLO 4</b></p>
	<p><b>Component 3: Summative assessment</b></p> <p><b>Summary of Assessment Method:</b></p> <p>Final Examination</p> <p><b>Weighting: 60%</b>  <b>Assesses Learning Outcomes: CLO 1 - CLO 5</b></p>
<b>Instructional resources</b>	<ul style="list-style-type: none"> <li>i. Smartphones</li> <li>ii. PC</li> <li>iii. Open Educational Resources (Including: YouTube, MOOCS-Udemy/coursea, khan academy, TESSA)</li> </ul>
<b>Required reading list (Core)</b>	<ol style="list-style-type: none"> <li>1. Backhouse, J.K., &amp; Houldsworth, S. P. T. (1985). Pure mathematics I. London: Pearson.</li> <li>2. Larson, R. E., Kanold D. T., &amp; Stiff L. (1993). Intermediate algebra. Canada: D. C. Heath and Company</li> <li>3. Ofosu, J. B. (2001). A comprehensive SSS course in elective Mathematics. Accra, Afram Publication.</li> <li>4. Stroud K. A. &amp; Dexter J.B. (2007). Engineering Mathematics. 6 Macmillan, New York.</li> </ol>

## GENERAL PHYSICS THEORY II

### CONTEXT

Physics has often been viewed as a difficult subject, and this is an attitude that is engendered by teachers who were not well taught themselves and who are only teaching physics because there is no-one else to do it. The subject is therefore often taught without enthusiasm, together with “dry” content. The curriculum itself doesn’t help as it is often not well thought through and much of what we teach in high school is foundational

for higher level courses. This means that the more interesting material is often deemed to be too conceptually difficult, especially by those whose main subject interest is chemistry or biology. There are many students in our classes who are doing physics as a means to get into engineering or medical courses. This may be one of the reasons why there is a lack of students studying for science degrees and becoming teachers. If we are to change the downward spiral, we must enable students to see the excitement in physics – the wonder and the amazing possibilities of being able to see how the universe works.

Women are underrepresented in science, especially in physics education. Most leakage from the STEM career “pipeline” occurs in high school and in the transition from high school to college, not in college. Most students who had not taken high school physics ever enter the pipeline. Engaging, well-prepared physics teachers are critical to providing capable students and especially women with the confidence and interest to pursue STEM degree programs. Poor initial physics experiences can dissuade and demoralize. Highly qualified physics teachers tend to be hired by established boarding schools our big cities, not by districts in our inner cities and rural areas. Inequality of opportunity in physics education contributes to inequality in college and career outcomes. In this course, assessment techniques and pedagogical practices that improve women and girls’ knowledge, attitude and participation in science would be employed.

#### The Purpose of the Laboratory

Physics is an experimental science. The theoretical concepts and relationships introduced in the lecture part of the course describe the general nature and behavior of real phenomena. They were, appropriately, discovered by (or inducted from) careful observation and thoughtful analysis of actual experiments. Genuine understanding entails being able to relate the abstract ideas to the particular facts to which they correspond. The premise of the scientific method is that (observation of) nature is the ultimate judge of the truth of any physical theory. Indeed, experiments designed to prove certain ideas have often ended up showing them to be wrong. Consequently, all physical concepts must be verified experimentally if they are to be accepted as representing laws of nature. The laboratory is not a contest whose object is to get the “right answer.” The purpose is to learn how to gain knowledge by looking at reality, not an attempt to make reality conform to preconceptions. The important thing is to learn how to be observant, to really see what happens, and to deal with this information with the strictest integrity. And to understand, or learn to understand, the meaning of what happens.

Course Title	General Physics Theory II						
Course Code	EBS 216	Course Level:	200	Credit Value:	2	Semester	1

Pre-requisite	General Physics Theory I						
Course Delivery Modes	Face -to -face <sup>1</sup> <input checked="" type="checkbox"/>	Practical Activity <sup>2</sup> <input type="checkbox"/>	Work-Based Learning <sup>3</sup> <input checked="" type="checkbox"/>	Seminars <sup>4</sup> <input type="checkbox"/>	Independent Study <sup>5</sup> <input checked="" type="checkbox"/>	e-learning opportunities <sup>6</sup> <input checked="" type="checkbox"/>	Practicum <sup>7</sup> <input type="checkbox"/>
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	<p>This is the second part of the two-semester introductory physics course aimed primarily at students majoring in the sciences. A non-calculus approach is used but a working knowledge of algebra is required. The main topic treated include: Introduction to Optics, Waves and acoustics, Static electricity, Current electricity and electric energy</p> <p><b>Build problem-solving skills:</b> The key to problem solving is understanding the basics of the subject. So, the focus should be on strengthening the basic concepts of any topic to the students. A complaint that is often heard in a Physics class is, “Sir I understand the concepts but I just can't solve the problems.” Students are usually able to solve the problems that involve basic equations. But, problems that require the fundamental concepts become a hard nut to crack for the students. So, worksheets that include real life Physics problems should be given to the students instead of computational Physics problems. The approaches that would be used in the delivery of this course should prepare trainees to ensure the learning progress of all students by projecting gender roles and issues relating to equity and inclusivity. (NTS 2b, 2c, p13; 3e-3m, 3p, p14; NTECF Pillar 1)</p>						
Course Learning Outcomes <sup>8</sup> : including INDICATORS for each learning outcome	Outcomes: Upon successful completion of the course, learners will be able to:			Indicators			
	<p>4. Demonstrate an understanding of reflection and refraction, with the emphasis on an interpretation in terms of waves. (NTS 2b, 2c, p13; 3l, 3m, p14)</p>			<p>Design a demonstration of refraction using a ripple tank. Prepare learner to:</p> <ul style="list-style-type: none"> <li>• know how to justify the law of reflection by a wave diagram.</li> <li>• know how to justify Snell’s law in terms of wave velocities.</li> <li>• be able to perform calculations involving the refractive index.</li> <li>• be able to perform calculations involving critical angle.</li> <li>• know the benefits of fibre optic</li> </ul>			

				communication.
		5. Appreciate the idea that vibrations can give rise to disturbances travelling outwards, i.e. to progressive waves, and identify types and some of the basic properties of waves. (NTS 2b, 2c, p13; 3f, 3g, 3j, p14)		<ul style="list-style-type: none"> <li>• Use a “slinky” type spring, diameter about 9 cm, to show longitudinal waves.</li> <li>• Also use the slinky spring to show longitudinal pulses.</li> </ul>
		6. Demonstrate an understanding of basic electrical ideas, particularly static electricity, current electricity and electric energy. (NST 2b, 2c, p13; 3g, 3j, 3m, p14)		<ul style="list-style-type: none"> <li>• Design a circuit using batteries and three identical resistors.</li> <li>• Prepare a schematic diagram of cell connected to a lamp. The idea to get across is that charge carriers are pushed around a circuit by the emf of the cell.</li> <li>• Design a schematic diagram of “spooning charge.”</li> </ul>
Course Content	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	1.	Introduction to Optics	<ul style="list-style-type: none"> <li>- Reflection and Refraction at plane surfaces</li> <li>- Reflection at curved surfaces (Mirrors)</li> </ul> Refraction at curved surfaces (Lenses)	<ul style="list-style-type: none"> <li>• Reflection and refraction with ripple tank.</li> <li>• Show reflection of ripples at a straight barrier. Start with straight ripples striking a straight barrier, at an angle. Continue with a single straight ripple, then a curved ripple.</li> <li>• To show refraction with a ripple tank, you need to show how ripples change speed when travelling from deeper into shallower water (or vice versa).</li> <li>• Submerge a sheet of glass in the water to provide an area of shallower water; the shallower, the better.</li> <li>• Show diagrams (both reflection and refraction) to summarize these observations.</li> </ul>

	2.	Waves and acoustics	<ul style="list-style-type: none"> <li>- Mechanical waves (types and periodic waves)</li> <li>- Mathematical description of wave</li> <li>- Characteristic properties</li> </ul> <p>Sound waves – stationary waves and Doppler effect.</p>	<ul style="list-style-type: none"> <li>• Fix one end of the slinky using a retort stand and large weight, keep it on the floor or bench, and keep hold of the other end yourself.</li> <li>• Demonstrate how a pulse travels along the spring when you move the end from side to side (you will have to move your hand sharply to get a good pulse). Repeated pulses make up a continuous wave.</li> <li>• Fix one end of the slinky spring to a retort stand, and quickly push the free end back and forth, along the length of the spring. Watch the motion of the marked coil. It moves to and fro as the disturbance is passed along.</li> </ul>
	3.	Static electricity	<ul style="list-style-type: none"> <li>- Properties of electric charge</li> <li>- Coulombs Law</li> <li>- Gauss's law.</li> <li>- Electric potential and Potential energy.</li> </ul> <p>-Capacitors and capacitance</p>	<ul style="list-style-type: none"> <li>• Set the spooning charge experiment to demonstrate that electric charge can be picked up and carried by a spoon, just as if it were sugar or milk.</li> <li>• By using a range of capacitors, resistors and an ammeter, demonstrate charging and discharging of capacitors.</li> </ul>
	4.	Current electricity and electric energy	<ul style="list-style-type: none"> <li>- Electric circuit</li> <li>- Series and parallel arrangements of cells and resistors</li> <li>- Ohms Law (Ohmic &amp; non ohmic conductors)</li> <li>- Measurement of electric current,</li> </ul>	<ul style="list-style-type: none"> <li>• Set up the circuit using batteries and three identical resistors. At the same time, show the circuit diagram. Give a running commentary as you connect up.</li> <li>• Show a cell connected to a lamp.</li> <li>• Introduce the terminology of electromotive force (voltage across a source of electrical energy) and potential difference (voltage across a component that uses electrical</li> </ul>



		<p>potential difference, resistance, emf, internal resistance, lost volt of a cell</p> <ul style="list-style-type: none"> <li>- Simple calculations involving the use of the formula for resistors in series and in parallel.</li> </ul> $R = R_1 + R_2 \dots\dots\dots,$ $\frac{1}{R} = \frac{1}{R_1} + \frac{1}{R_2} \dots\dots\dots, V =$ $IR, \text{Emf} = I(r + R)$ <ul style="list-style-type: none"> <li>- Electric power</li> <li>-Kirchhoff's Laws</li> </ul>	<p>energy).</p> <ul style="list-style-type: none"> <li>• Stress that, despite its name, emf is not a force but a voltage, measured in volts.</li> </ul>										
<p>Course Assessment Components<sup>9</sup> : (Educative assessment of, for and as learning)</p>	<p>A combination of formative and summative assessment including group tasks, quizzes, individual and take home assignment and examination will be used.</p> <p>Assessment weighting:</p> <p>Component 1: Formative assessment</p> <table> <tr> <td>Quiz 1 (CLO 1)</td> <td>10%</td> </tr> <tr> <td>Quiz 2 (CLO 3)</td> <td>10%</td> </tr> <tr> <td>Group tasks (CL 2)</td> <td>10%</td> </tr> <tr> <td>Individual assignment (CLO 4)</td> <td>10%</td> </tr> </table> <p>Component 2: Summative assessment</p> <table> <tr> <td>CLO 1-4.</td> <td>60%</td> </tr> </table> <p>Students will be graded as follows:</p>			Quiz 1 (CLO 1)	10%	Quiz 2 (CLO 3)	10%	Group tasks (CL 2)	10%	Individual assignment (CLO 4)	10%	CLO 1-4.	60%
Quiz 1 (CLO 1)	10%												
Quiz 2 (CLO 3)	10%												
Group tasks (CL 2)	10%												
Individual assignment (CLO 4)	10%												
CLO 1-4.	60%												

	<b>A=80-100%; B+=75-79%; B =70-74%, C+ =65-69%, C= 60-64%, D+=55-59, D=50-54, E&lt; 50 (Fail)</b>
Instructional Resources	Computer assisted instruction, Interactive simulations, Smart phones, Google, YouTube, PowerPoint Projections
Required Text (core)	Freedman, R. A. & Yound, H. D. (2008). <i>University physics</i> . (12 <sup>th</sup> ed.). Pearson and Addison Wesley. Jewett, J.W. & Sarway, R. A. (2002). <i>Principles of physics</i> . (3 <sup>rd</sup> ed.) Harcourt College publishers. Resrucr, R., Halliday, D., & Walker, J. (2010). <i>Fundamentals of physics</i> . John Wiley & Sons Inc.
Additional Reading List <sup>10</sup>	Gibbs, K. (2003). <i>Advanced Physics</i> . Cambridge: Cambridge University Press.

## GENERAL PHYSICS PRACTICAL II

Course Title	General Physics Practical II						
Course Code	EBS 216P	Course Level:	200	Credit Value:	1	Semester	1
Pre-requisite	General Physics Practical I						
Course Delivery Modes	Face -to -face <sup>1</sup> <input checked="" type="checkbox"/>	Practical Activity <sup>2</sup> <input checked="" type="checkbox"/>	Work-Based Learning <sup>3</sup> <input checked="" type="checkbox"/>	Seminars <sup>4</sup> <input type="checkbox"/>	Independent Study <sup>5</sup> <input checked="" type="checkbox"/>	e-learning opportunities <sup>6</sup> <input checked="" type="checkbox"/>	Practicum <sup>7</sup> <input type="checkbox"/>
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	<p>This is the practical component of General Physics Theory II and is designed to help students gain hands-on experience with laboratory equipment as they perform experiments to enhance their understanding of some of the theoretical concepts. Practical ability to do experiments and analyze data is usually acquired through practice and experience. Practice is very important in learning any new discipline; such as, for example, a new language. A good lecture may be very helpful but not fully useful without actual practice. In experimental science, practice involves solving many problems (i.e. homework) and performing a variety of experiments (i.e. labs). Practice is essential to being able to make the connection between theory and experience. Such experiments include the determination of focal length of lenses and refractive index of glass block; investigation of Ohm's law and determination of resistivity of materials. The approaches that would be used in the delivery of this course should prepare trainees to ensure the learning progress of all students by projecting gender roles and issues relating to equity and inclusivity.</p> <p>(NTS 2b, 2c, p13, 3a, 3c, 3e-3m, 3p, p14; NTECF Pillar 1)</p>						
Course Learning Outcomes <sup>8</sup> : including INDICATORS for each learning outcome	<p>Outcomes: Upon successful completion of the course, learners will be able to:</p> <p>4. Demonstrate the ability to organize the activities that lead to a successfully completely scientific investigation. (NTS 2b, 2c, p13, 3a, 3c, 3f, p14)</p>			<p>Indicators</p> <ul style="list-style-type: none"> <li>• Design and carry out the experiment as outlined.</li> <li>• Follow and use the format for laboratory experimental report writing.</li> </ul>			

	5. Demonstrate the ability to use technology to collect and analyze experimental data and the ability to extract elements of the physical principles exemplified by the system being studied. (NTS 2b, 2c, p13, 3a, 3c, 3f, 3i, 3j. p14)		<ul style="list-style-type: none"> <li>• Collect and analyze experimental data using the appropriate technological tools.</li> <li>• Take time to familiarize yourself with each equipment that will be used in the laboratory.</li> </ul>	
	6. Demonstrate the importance of safety to the students. Students will participate in Laboratory Safety training and complete a form indicating understanding and anticipate compliance. Students will be informed and properly trained to use potentially hazardous equipment or materials encountered in this course.(NST 2b, 2c, p13, 3c. p14).		<ul style="list-style-type: none"> <li>• Observe all safety rules in the laboratory.</li> <li>• Stay focus and be conscious of what you are doing.</li> <li>• Ask when in doubt.</li> </ul>	
Course Content	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	1.	Wheatstone Bridge Experiment	<ul style="list-style-type: none"> <li>• Determination of unknown resistance</li> <li>• Determination of the total resistance of <ul style="list-style-type: none"> <li>iii) resistors in series</li> <li>iv) resistors in parallel</li> </ul> </li> </ul>	Learners to design and carry out the experiments as required.
	2.	Wheatstone Bridge Experiment	Determination of the resistance of a wire as a function of its cross-section.	Learners to design and carry out the experiments as required
	3.	Water Wave Channel	To demonstrate and investigate surface waves in water.	Learners to design and carry out the experiments as required
	4.	Measurement of Low Resistance	To plot the current/voltage characteristics of metal rod (copper & aluminium) and calculate their resistivity.	Learners to design and carry out the experiments as required
	5.	Measurement of Low Resistance	Determination of the resistances of some connecting cords of different lengths by plotting their current/voltage characteristics.	Learners to design and carry out the experiments as required

	6.	Refraction of Light	Determination of the focal length of a converging lens.	Learners to design and carry out the experiments as required
	7.	Refraction of Light	Determination of the refractive index of a glass block using Snell's Law.	Learners to design and carry out the experiments as required
	8.	Refraction of Light	Determination of the focal length of a converging lens using optical pins (no parallax method)	Learners to design and carry out the experiments as required
	9.	Resonance: Waves in Pipes	Determination of the velocity of sound in air	Learners to design and carry out the experiments as required
	10.	Resonance: Waves in strings	Determination of the frequency A.C mains.	Learners to design and carry out the experiments as required
Course Assessment Components <sup>9</sup> : (Educative assessment of, for and as learning)	<p>Both formative and summative assessment including individual lab report, and end of semester examination will be used.</p> <p>Assessment weighting:            Component 1: Formative assessment            This is practical course, students are expected to carry out 10 practical activities and each practical will form part of the <b>Component 1</b>. Component 1 will constitute 60% of the course assessment.</p> <p>Component 2: Summative assessment            One practical examination will be conducted at the end of the semester, this will constitute 40% of the course assessment.</p> <p>Students will be graded as follows:  <b>A</b>=80-100%; <b>B+</b>=75-79%; <b>B</b> =70-74%, <b>C+</b> =65-69%, <b>C</b>= 60-64%, <b>D+</b>=55-59, <b>D</b>=50-54, <b>E</b>&lt; 50 (Fail)</p>			
Instructional Resources	Physics Laboratory, Computer/Laptops, Smart phones, Google, YouTube, Lab equipment/apparatus as indicated.			
Required Text (core)	Jewett, J.W. & Sarway, R. A. (2002). <i>Principles of physics</i> . (3 <sup>rd</sup> ed.) Harcourt College publishers. Resrucl, R., Halliday, D., & Walker, J. (2010). <i>Fundamentals of physics</i> . John Wiley & Sons Inc.			
Additional Reading List <sup>10</sup>	Department of Physics, UCC (2016). Laboratory Manual for General Physics Theory II			

## GENERAL CHEMISTRY THEORY II

### CONTEXT

The teaching and learning of Chemistry should be done in such a way that new concepts are presented in real-life (outside the classroom) situations and experiences that are familiar to the students. The examples and student exercises should be presented in the context of their use. These should include many real, believable problem-solving situations that students can recognize as being important to their current or possible future lives. The students should be encouraged to gather and analyze their own data as they are guided in discovery of the important concepts. Therefore, teachers should create opportunities for students to gather and analyze their own data for enrichment and extension. The lessons and activities should encourage the student to apply concepts and information in useful contexts, projecting the student into imagined futures. The students are expected to participate regularly in interactive groups where sharing, communicating, and responding to the important concepts and decision making occur. The lessons, exercises, and laboratory work improve students' reading and other communication skills in addition to scientific reasoning and achievement.

Course Title	General Chemistry Theory II						
Course Code	EBS 254	Course Level	200	Credit value	2	Semester	1
Pre-requisite	Students have acquired knowledge in Senior High School Elective Chemistry						
Course Delivery Modes	Face-to-face <input checked="" type="checkbox"/>	Practical Activity <input checked="" type="checkbox"/>	Work-Based Learning <input checked="" type="checkbox"/>	Seminars <input type="checkbox"/>	Independent Study <input checked="" type="checkbox"/>	e-learning opportunities <input type="checkbox"/>	Practicum <input type="checkbox"/>
Course Description	This chemistry course is designed to consolidate and expand on the content students have acquired from their lessons in the elective chemistry course at the senior high school level. The course treats states of matter, chemical kinetics, and some aspects						

<p>for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</p>	<p>of organic chemistry. Topics studied in this course include kinetic theory, rate of chemical reactions and chemical equilibrium, and functional group organic compounds. The approaches that would be used in the delivery of this course should prepare trainees to ensure the learning progress of all students by projecting gender roles and issues relating to equity and inclusivity.</p> <p>(NTS 2a, 2b, 2c,2e. 2f,p.13; 3e-3o, p.14; NTECF Pillar 1)</p>	
<p>Course Learning Outcomes: including INDICATORS for Each learning outcome</p>	<p><b>Outcomes</b></p> <p>The course will enable students to:</p> <p>CLO 1. (a) state the properties of the states of matter in terms of the kinetic theory</p> <p>(b) describe the properties and behaviours of plasma</p> <p>(NTS 2c, 2e p. 13, 3h, 3j, p. 14).</p> <p>CLO 2. explain the gas laws</p> <p>(NTS 2c, 2e p. 13, 3h, 3j, p. 14).</p> <p>CLO 3. describe the concept of vapour pressure</p> <p>(NTS 2c, 2e p. 13, 3h, 3j, p. 14).</p>	<p><b>Indicators</b></p> <p>c. outline the properties of solids, liquids and gases using the kinetic theory</p> <p>d. distinguish between the properties and behaviours of plasma and those of the other states,</p> <p>iv) Use the kinetic model to explain Charles'; Boyle's; Dalton's; Graham's; Avogadro's laws and the ideal gas equation</p> <p>v) Derive the mathematical relations of the gas laws</p> <p>vi) Perform calculations based on the laws</p> <p>f. Explain the concept of vapour pressure</p>

<p>CLO 4. describe the nature of solids (NTS 2c, 2e p. 13, 3h, 3j, p. 14).</p>	<p>b. Describe ionic, metallic, covalent and molecular solids</p>
<p>CLO 5. Differentiate between physical and chemical changes (NTS 2c, 2e p. 13, 3h, 3j, p. 14).</p>	<p>c. Give examples of reactions that undergo physical and chemical changes d. Tell three differences between physical and chemical changes</p>
<p>CLO 6. explain the factors that affect the rate of chemical reactions (NTS 2c, 2e p. 13, 3h, 3j, p. 14).</p>	<p>b. describe how temperature, catalyst, concentration, surface area (particle size) or nature of reactants, and pressure (for reactions involving gases) influence the rate of chemical reactions</p>
<p>CLO 7. Demonstrate understanding of reversible reactions and equilibrium (NTS 2c, 2e p. 13, 3h, 3j, p. 14).</p>	<p>d. explain the factors affecting reversible reactions e. give two examples of reversible reactions f. describe the effect of equilibrium position in a chemical reaction</p>
<p>CLO 8. classify and name different types of organic compounds (NTS 2c, 2e p. 13, 3h, 3j, p. 14).</p>	<p>c. group given organic compounds into alkanes, alkenes, alkynes, alkanols, alkanones, alkanolic acids and alkanoates d. write the names of given organic compounds</p>
<p>CLO 9. describe the structures of different organic compounds</p>	<p>d. tell the differences in the structures of different organic compounds e. draw the structures of given organic compounds</p>



	(NTS 2a, 2b, 2c, 2e. 2f, p.13; 3e-3o, p.14)			f. describe structural (chain, position and functional group) and geometric isomerism
	CLO 10. discuss the chemical and physical properties of organic compounds (NTS 2a, 2b, 2c, 2e. 2f, p.13; 3e-3o, p.14)			c. describe the chemical and physical properties of organic compounds d. analyze the chemical and physical properties of organic compounds
	CLO 11. discuss the preparation and uses of organic compounds (NTS 2a, 2b, 2c, 2e. 2f, p.13; 3e-3o, p.14)			c. explain the laboratory preparation of three named organic compounds d. describe the uses of three named organic compounds
	Units	Topics	Sub-topics (if any):	Teaching and learning activities to active learning outcomes
Course Content	1	STATES OF MATTER	f) Kinetic theory	vii) Class discussion of the postulates (assumptions) of the kinetic-molecular theory  viii) Student presentation on the use of the kinetic model to explain <ul style="list-style-type: none"> <li>• the nature of solids, liquids and gases;</li> <li>• the changes of states of matter</li> </ul>

				<p>ix) Student presentation on the properties and behaviours of plasma</p> <p>x) Computer simulation of the changes of state of matter in terms of movement of particles.</p> <p>xi) Illustrations of changes of state using the different forms of water, iodine, sulphur, naphthalene, etc.</p> <p>xii) Demonstration of Brownian motion using any of the following experiments:</p> <ul style="list-style-type: none"> <li>• Pollen grains/powdered sulphur in water (viewed under a microscope)</li> <li>• Smoke in a glass container illuminated by a strong light from the side</li> <li>• A dusty room being swept and viewed from outside under sunlight.</li> </ul>
			g) Diffusion	<p>ii) Demonstration the concept of diffusion using the following:</p> <ul style="list-style-type: none"> <li>• Diffusion of bromine or iodine or <math>\text{NO}_2</math> from a sealed tube into an empty tube</li> <li>• Spread of scent of ammonia in room.</li> </ul>
			h) Gases	<p>g. Using the lecturette method to give a qualitative explanation of each of the gas laws: Charles'; Boyle's; Dalton's; Graham's; Avogadro's laws and the ideal gas equation, using the kinetic model</p> <p>h. Class discussion on the Mathematical relations of the gas</p>

				<p>laws and calculations based on the laws</p> <p>i. Practical work on preparation of gases, that is, Laboratory preparation of gases lighter than air (<math>H_2</math>, <math>NH_3</math>) and gases heavier than air (<math>O_2</math>, <math>HCl</math> and <math>SO_2</math>) to illustrate the principles of purification and collection of gases.</p> <p>j. Class discussion of the results of the practical work and the physical and chemical properties of gases</p>
			i) Liquids	<p>d. Student presentation on the concept of vapour pressure</p> <p>e. Group discussion on Liquids as an intermediate state between gases and solids in the kinetic-molecular</p> <p>f. Class discussion on simple methods for determination of boiling points and standard boiling point.</p>
			j) Solids (Types and structures)	<p>ii) Class discussion of Ionic, metallic, covalent and molecular solids</p> <p>Visit to industrial sites to interact with workers, observe and discuss the application of State of matter in the industry</p> <p>Write a report on the industrial visit for a general class discussion</p>
	2	RATE OF CHEMICAL	d) Physical and chemical changes	<p>v) Brainstorming to define physical and chemical changes</p> <p>vi) Class discussion on the examples of reactions that</p>

		REACTION AND CHEMICAL EQUILIBRIUM		undergo physical and chemical changes
			e) Rate of chemical reactions	iii) Class discussion on the meaning of rate of reaction vii) Class discussion on the hypothetical equation to show the relationship between the rate of reaction, concentration of reactants and time viii) Class discussion on the factors that affect the rate of chemical reaction
			f) Reversible reactions and equilibrium	iv) Class discussion on the factors affecting reversible reactions, examples of reversible reactions, and the effect of equilibrium position in a chemical reaction  Visit to industrial sites to interact with workers, observe and discuss the application of Rate of Chemical Reaction and Chemical Equilibrium in the industry  Write a report on the industrial visit for a general class discussion
	3	THE CHEMISTRY OF CARBON	Alkanes ff) Nomenclature of alkanes	iii) use lecturette method to explain the rules for naming alkanes iv) use question and answer method to guide students to name given alkanes

		Alkanes gg) Isomerism in alkanes	j) Discuss chain isomerism with students
		Alkanes hh) Physical properties of alkanes	ii) Class discussion of the physical properties of alkanes, e.g. melting point, boiling point, solubility, volatility and states.
		Alkanes ii) Chemical properties (chemical reactions)	iv) Class discussion of the chemical properties (chemical reactions) v) Discuss the combustion and halogenations reactions of alkanes.
		Alkanes jj) Conversion to alkanes	vi) Discuss the preparation of alkanes
		Alkanes kk) Use of alkanes	ii) Class discussion of the uses of alkanes
		Alkenes ll) Nomenclature of alkenes	iii) use lecturette method to explain the rules for naming alkenes ii) use question and answer method to guide students to name given alkenes
		Alkenes mm) Isomerism in alkenes	v) Computer molecular modelling of structural and geometric isomerism to be followed by a class discussion of structural isomerism (chain, position and functional group isomerism) and geometric isomerism (cis and trans isomerism) vi) Use question and answer method to guide students to

				<p>identify alkanes and their corresponding cycloalkane isomers</p> <p>vii) Use question and answer method to guide students to identify cycloalkanes and their corresponding alkyne isomers</p> <p>iv) Use question and answer method to guide students to identify the isomers in a given polyene</p>
			Alkenes nn) Physical properties of alkenes	ii) Class discussion of the physical properties of alkenes
			Alkenes oo) Reactivity and reactions of alkenes	<p>v) Class discussion on the reactivity of alkenes</p> <p>vi) Class discussion on the factors affecting reactivity of alkenes</p> <p>vii) Class discussion on the types of reactions of alkenes</p> <p>viii) Class discussion of the reaction of symmetrical and unsymmetrical alkenes with hydrogen, bromine, halogen halides and water</p>
			Alkenes pp) Conversion to alkenes	ii) Discuss with students the preparation of alkenes
			Alkenes qq) Uses of alkenes	ii) Class discussion of the uses of alkenes
			Alkynes	iii) use lecturette method to explain the rules for naming alkynes

			rr) Nomenclature of alkynes	iv) use question and answer method to guide students to name given alkynes
		Alkynes	ss) Isomerism in alkynes	<p>iii) Computer molecular modelling of structural isomerism to be followed by a class discussion of structural isomerism (chain and position isomerism)</p> <p>iv) Use question and answer method to guide students to identify cycloalkanes and their corresponding alkyne isomers</p>
		Alkynes	tt) Physical properties of alkynes	ii) Class discussion of the physical properties of alkenes
		Alkynes	uu) Preparation of alkynes	<p>iv) Discuss the preparation of ethyne from calcium carbide and water.</p> <p>v) Discuss the test for alkynes</p>
		Alkynes	vv) Reactivity and reactions of alkynes	<p>iv) Discuss chemical reactions of alkynes</p> <p>vi)</p>
		Alkanols /Alcohols	ww) Sources of alkanols	ii) Class discussion of the sources of alcohols
		Alkanols /Alcohols	xx) Isomerism in alkanols	v) Computer molecular modelling of structural isomerism to be followed by a class discussion of structural isomerism (chain, position and functional group isomerism)

		Alkanols /Alcohols	yy) Structure and shape of alkanol	viii) Class discussion of the structure and shape of alkanols, e.g. methanol (CH <sub>3</sub> OH)
		Alkanols /Alcohols	zz) Physical properties of alkanols	ii) Class discussion of the physical properties of alkanols
		Alkanols /Alcohols	aaa) Preparation of alkanols.	ii) Practical work on the preparation alkanols from alkenes and haloalkanes, palm wine, sugarcane juice, cocoa, maize, millet and fruits
		Alkanols /Alcohols	bbb) Chemical properties of alkanols	iii) Practical work on the chemical properties of alkanols iv) Class discussion of the chemical properties of alkanols
		Alkanols /Alcohols	ccc) Uses of alkanols	ii) Class discussion of the uses of alkanols
		Carbonyl Compounds		ii) Class discussion of the structure and shapes of carbonyl compounds



			(Alkanals and Alkanones)  ddd) Structures and shapes of alkanals and alkanones (also known as aldehydes and ketones)	
		Alkanals  eee) Physical properties of carbonyls		ii) Class discussion of the physical properties of carbonyl compounds
		Alkanals  fff) Uses of alkanals		vi) Class discussion of the uses of carbonyl compounds
		Alkanoic acids and Alkanoates  ggg) Sources, preparation and properties of Alkanoic acids hhh) Uses of Alkanoic acids iii) Sources of fats and oils: Physical and chemical properties saponification and soap production. Hardening of oils		iii) Class discussion of the sources, preparation, properties, and uses of alkanoic acids iv) Class discussion of the sources of fats and oils, physical and chemical properties, saponification and soap production, hardening of oils.
		jjj) Derivatives of Alkanoic acids		ii) Class discussion of acid chlorides, acid anhydrides, amides and esters  - Visit to industrial sites to interact with workers,

				<p>observe and discuss the application of Organic Chemistry the industry</p> <ul style="list-style-type: none"> <li>- Write a report on the industrial visit for a general class discussion</li> </ul>
<p><b>Course Assessment</b></p> <p>(Educative assessment: of, for and as learning)</p>	<p><b>Component 1:</b> Formative assessment (individual and/or group presentations)</p> <p>Summary of Assessment Method: Individual and/or group presentations on Unit 1 (core skills to be developed are effective communicative skills, collaborative skills, and critical thinking skills). Students will be involved in assessing their colleagues (peer assessment)</p> <p>Assessment Weighting: 20%</p> <p>Assesses Learning Outcomes: CLO 1-5 (Unit1)</p> <p><b>Component 2:</b> Formative assessment (quizzes, class tests, class exercises, and assignments)</p> <p>Summary of Assessment Method: Quizzes, class test, class exercises and assignments on Units2 and 3 (core skills to be developed: critical thinking , creativity, and personal development)</p> <p>Assessment Weighting: 20%</p> <p>Assesses Learning Outcomes: CLO 6 - 10 (Units 2 and 3)</p> <p><b>Component 3:</b> Summative assessment</p> <p>Summary of Assessment Method: End of semester examination (composed of multiple choice questions and essay-type questions)</p>			

	<p>on Units 1 to 3 (core skills to be developed: critical thinking, creative thinking, problem solving, innovation, and personal development)</p> <p>Weighting: 60%</p> <p>Assesses Learning Outcomes: CLO 1-11 (Units 1 – 3)</p>
Instructional Resources	<p>8. Charts, pictures and models.</p> <p>9. Computers and projectors, television, and living objects.</p> <p>10. Excursions and visits, exhibitions and fairs, and experimentation in the laboratory and work-shop</p>
Required Text (core)	<p>Chang, R. (2003). <i>General chemistry: The essential concepts</i>. (3<sup>rd</sup>ed.). Boston: McGraw Hill.</p> <p>Dadson, B.A. (2008). <i>The first course in organic chemistry</i>. Cape Coast: Risoprint Enterprise.</p> <p>Gallagher, R. &amp; Ingram, P. (1987). <i>Chemistry made clear</i>. Oxford: Oxford University Press.</p> <p>Ohia, G.N.C., Amasiatu, G.I., &amp; Ajagbe, J.O. (2005). <i>Comprehensive certificate chemistry</i>. Ibadan: University Press PLC.</p> <p>Whitten, K.W., Davis, R.E., &amp; PeackM.L.(2000) <i>General Chemistry</i>. (6<sup>th</sup>ed.). Fort Worth: Saunders College Publishing.</p> <p>Holderness, A. &amp; Lambert, J. A. (1979). <i>New certificate chemistry</i>, London: Heinemann.</p>
Additional Reading List	<p>Abbey, T.K., Ameyibor, K., Essiah, J.W., Nyavor, C.B., Seddoh, S. &amp;Wiredu M.B. (1995). <i>GAST Science for senior secondary school</i>. London: Unimax Publishers Limited</p> <p>Ameyibor, K., &amp;Wiredu M. B. (1991). <i>GAST chemistry for senior secondary school</i>. London: Macmillan Education Limited.</p>

## GENERAL CHEMISTRY PRACTICAL II

### CONTEXT

EBS 254P General Chemistry Practical II uses laboratory work in chemistry to support explanation of theory. The course will allow students to take an active role in their learning through practical work. The students would be encouraged to engage in laboratory work and analyze their own data as they are guided in discovery of evidence to support explanation of theory. Therefore, teachers should create opportunities for students to do practical work and analyze their own data for enrichment and extension. The students are expected to participate regularly in interactive groups where sharing, communicating, and responding to the important concepts and decision making occur. The laboratory work improves students' reading and other communication skills in addition to scientific reasoning and achievement

Course Title	General Chemistry Practical II						
Course Code	EBS 254P	Course Level	200	Credit value	1	Semester	2
Pre-requisite	Students have studied Senior High School Elective Chemistry						
Course Delivery Modes	Face-to-face <input checked="" type="checkbox"/>	Practical Activity <input checked="" type="checkbox"/>	Work-Based Learning <input checked="" type="checkbox"/>	Seminars <input type="checkbox"/>	Independent Study <input type="checkbox"/>	e-learning opportunities <input type="checkbox"/>	Practicum <input type="checkbox"/>
Course Description for significant learning (indicate NTS, NTECF,	The practical course consolidates and builds on the practical skills students have acquired at the senior high school level. In this practical course, students will develop the skills of doing qualitative testing and identifying functional groups in organic compounds, anions and cations in inorganic compound. Students will be introduced to chemical tests based on reactions that produce colour change by adding a reagent or the production of an insoluble solid that appears as a precipitate. They will also be engaged in different purification techniques like liquid-liquid extraction, thin layer chromatography (TLC),						

BSC GLE to be addressed)	<p>paper chromatography (PC), simple distillation, fractional distillation, steam distillation. The approaches that would be used in the delivery of this course should prepare trainees to ensure the learning progress of all students by projecting gender roles and issues relating to equity and inclusivity.</p> <p>(NTS 2a, 2b, 2c,2e. 2f,p.13; 3e-3o, p.14; NTECF Pillar 1)</p>	
Course Learning Outcomes: including INDICATORS for Each learning outcome	<p>Outcomes</p> <p>The course will enable students to acquire practical skills by:</p>	<p>Indicators</p> <p>The student will be able to:</p>
	<p>CLO 1. separating immiscible liquid mixture using liquid-liquid extraction</p> <p>(NTS 2c, 2e p. 13, 3h, 3j, p. 14).</p>	<ul style="list-style-type: none"> <li>• separate immiscible liquid mixtures using liquid-liquid extraction</li> </ul>
	<p>CLO 2. performing simple and fractional distillation to purify liquid mixtures</p> <p>(NTS 2a, 2b, 2c,2e. 2f, p. 13; 3e-3o, p. 14)</p>	<ul style="list-style-type: none"> <li>• describe the steps involved in simple and fractional distillation to purify liquid mixtures</li> <li>• perform simple and fractional distillation to purify liquid mixtures</li> </ul>
	<p>CLO 3. extracting essential oil from natural source</p> <p>(NTS 2a, 2b, 2c,2e. 2f, p. 13; 3e-3o, p. 14)</p>	<ul style="list-style-type: none"> <li>• perform an experiment to extract essential oil from natural source</li> </ul>
	<p>CLO 4. comparing the identity of two compounds using TLC and PC</p>	<ul style="list-style-type: none"> <li>• Demonstrate the ability to use TLC and PC</li> <li>• Compare the identity of two compounds using TLC and PC</li> </ul>

	(NTS 2c, 2e p. 13, 3h, 3j, p. 14).			
	CLO 5. Testing for specific functional groups of organic compounds (NTS 2c, 2e p. 13, 3h, 3j, p. 14).			<ul style="list-style-type: none"> <li>• perform tests for the following: <ul style="list-style-type: none"> <li>- unsaturated compounds</li> <li>- alkanols</li> <li>- carbonyl compounds</li> <li>- akanoic acids</li> <li>- amines</li> <li>- esters</li> <li>- amides</li> </ul> </li> </ul>
Course Content	Units	Topics	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	1	Purification techniques of Organic Compounds	Liquid – Liquid Extraction	Separation of immiscible liquid mixture using liquid –liquid extraction procedure (e.g. mixture of cooking oil and water) in the laboratory
			Simple and Fractional distillation	Students to perform separation of miscible liquid mixture using simple and fractional distillation.
			Steam Distillation	Students to use steam distillation to extract essential oil from plant.
			Thin Layer Chromatography and Paper Chromatography	Students to do laboratory work involving Thin Layer Chromatography and Paper Chromatography  Use of videos/computer simulations to demonstrate the purification techniques

	2	Qualitative analysis of Organic compounds	Alkenes and Alkynes	Students to perform identification test for unsaturation (alkenes/alkynes) in an organic compound using bromine water or bromine in carbon tetrachloride (CCl <sub>4</sub> ) in the laboratory
			Alcohols	Students to test for alcohols (methanol, CH <sub>3</sub> OH/ethanol, CH <sub>3</sub> CH <sub>2</sub> OH) using potassium permanganate (KMnO <sub>4</sub> ) reagent or potassium dichromate (K <sub>2</sub> Cr <sub>7</sub> O <sub>4</sub> ) in the laboratory
			Aldehydes and Ketones	Students to test for Aldehydes and ketones using 2,4-dinitrophenylhydrazine reagent in the laboratory
			Carboxylic acids	Students to test for carboxylic acid using wet blue litmus paper
			Amines	Students to test for amines using wet red litmus paper.
Course Assessment  (Educative assessment: of, for and as learning)	<p><b>Component 1:</b> Formative assessment (quizzes, class tests, class exercises, and assignments)</p> <p>Summary of Assessment Method: Quizzes, class test, class exercises and assignments on Units1-3(core skills to be developed: critical thinking , creativity, problem solving, and personal development)</p> <p>Assessment Weighting: 20%</p> <p>Assesses Learning Outcomes: CLO 1 -4 (Units1)</p>			

	<p><b>Component 2:</b> Formative assessment (individual and/or group practical work)</p> <p>Summary of Assessment Method: Individual and/or group practical work on Units 1 -3(core skills to be developed are effective communicative skills, collaborative skills, and critical thinking skills). Students will be involved in assessing their colleagues (peer assessment)</p> <p>Assessment Weighting: 20%</p> <p>Assesses Learning Outcomes: CLO 5 (Units 2)</p> <p><b>Component 3:</b> Summative assessment</p> <p>Summary of Assessment Method: End of semester practical examination on Units 1 to 3(core skills to be developed: thinking critically, problem solving, communicating concisely, managing time and report writing, and personal development)</p> <p>Weighting: 60%</p> <p>Assesses Learning Outcomes: CLO 1- 5 (Units 1&amp;2)</p> <p>The grading system will be guided by the following:</p> <p>(b) <b>A</b>=80-100%; <b>B+</b>=75-79%; <b>B</b> =70-74%, <b>C+</b> =65-69%, <b>C</b>= 60-64%, <b>D+</b> = 55-59, <b>D</b> = 50-54, <b>FAIL</b>&lt;50</p>
Instructional	11. Laboratory chemicals and safety materials



Resources	<p>12. Liquid-liquid extraction equipment, distillation/fractional distillation apparatus, Paper chromatography kit, Thin-layer chromatography kit, steam distillation set</p> <p>13. Computers (with internet connectivity) and projectors, television DVD discs and DVD player.</p> <p>14. Visits to industrial sites</p>
Required Text (core)	<p>Kelter, P., Mosher, M. A. and Scott, A. (2007). <i>Chemistry: The Practical Science</i> (1<sup>st</sup> ed.). USA: Cengage Learning</p> <p>Ohia, G.N.C., Amasiatu, G.I., &amp; Ajagbe, J.O. (2005). <i>Comprehensive certificate chemistry</i>. Ibadan: University Press PLC.</p> <p>Okonkwo, E.S. (1976). <i>Certificate practical chemistry</i>. Accra: FEP International Limited</p> <p>Vogel, A. I., Tatchell, A. R., Furnis, B. S., Hannaford, A. J. &amp; Smith, P. W. G. (1989). <i>Vogel's Textbook of Practical Organic Chemistry</i> (5<sup>th</sup> ed.). Essex: Pearson Education Limited.</p>
Additional Reading List	<p>Ameyibor, K., &amp; Wiredu M. B. (1991). <i>GAST chemistry for senior secondary school</i>. London: Macmillan Education Limited.</p> <p>Eilks, I. &amp; Hofstein, A. (Eds.). (2013). <i>A Practical Guide and Textbook for Student Teachers, Teacher Trainees and Teachers</i>. Rotterdam: Sense Publishers.</p>

## CURRICULUM STUDIES IN SCIENCE

### CONTEXT

Curriculum studies in science deals with the content of teaching (that is, the specific subject matter) and the teaching and learning of that content. It addresses the justification of the selection of that content, the learners the teaching is aimed at and how their learning process works, how that content is handled in the teaching, and who has power over the selection process. This includes areas such as curriculum theory and perspectives, curriculum development and analysis, and curriculum implementation.

Course Title	Curriculum Studies in Science						
Course Code	EBS 247	Course Level	200	Credit value	2	Semester	1
Pre-requisite	Students have studied Senior High School Elective Chemistry						
Course Delivery Modes	Face-to-face <input checked="" type="checkbox"/>	Practical Activity <input type="checkbox"/>	Work-Based Learning <input checked="" type="checkbox"/>	Seminars <input type="checkbox"/>	Independent Study <input type="checkbox"/>	e-learning opportunities <input type="checkbox"/>	Practicum <input type="checkbox"/>
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	<p>The course is designed to introduce the science education student to the fundamental bases of modern curriculum ventures (curriculum planning and designing) as they relate to science. It is intended to introduce students to the fundamental concepts of curriculum, curriculum content, models, designs, implementation, evaluation, development and analysis. It will offer students the opportunity to examine textbooks for Natural Science and Integrated Science, Teaching Syllabus for Natural Science (Lower Primary), Teaching Syllabus for Integrated Science (Upper Primary) and the Teaching Syllabus for Integrated Science (JHS). It will also enable students to discuss the importance of the syllabuses to the Science teacher, and guide students to come out with meaningful approaches/models to addressing the numerous curriculum shortfalls that bedevil present day Ghana. The approaches that would be used in the delivery of this course should prepare trainees to ensure the learning progress of all students by projecting gender roles and issues relating to equity and inclusivity.</p> <p>(NTS 2a, 2b, 2c, 2e, 2f, NTECF Pillar 1)</p>						

Course Learning Outcomes: including INDICATORS for Each learning outcome	Outcomes By the end of the EBS 247 the student would be able to:	Indicators The student will be able to:
	CLO 1. Explain the concept of curriculum (NTS 2c, 2e p. 13, 3h, 3j, p. 14).	<ul style="list-style-type: none"> <li>• describe curriculum</li> <li>• tell the elements of curriculum</li> <li>• describe the characteristics of curriculum</li> </ul>
	CLO 2. Describe curriculum perspectives (NTS 2c, 2e p. 13, 3h, 3j, p. 14).	<ul style="list-style-type: none"> <li>• explain the rationalist, empiricist, pragmatist and existentialist perspectives of curriculum</li> <li>• compare the four curriculum perspectives</li> </ul>
	CLO 3. Explain the types of curriculum (NTS 2c, 2e p. 13, 3h, 3j, p. 14).	<ul style="list-style-type: none"> <li>• explain the planned curriculum, implemented curriculum, and the attained curriculum</li> <li>• explain at least two other types of curriculum</li> <li>• tell the differences among the types of curriculum</li> </ul>
	CLO 4. Explain curriculum design (NTS 2c,2e. 2f, p. 13; 3h, 3j, p. 14)	<ul style="list-style-type: none"> <li>• tell the meaning of curriculum design</li> <li>• describe at least two patterns of curriculum design</li> </ul>
	CLO 5. Discuss the models of curriculum design (NTS 2a, 2b, 2c,2e. 2f, p. 13; 3e-3o, p. 14)	<ul style="list-style-type: none"> <li>• Describe at least four models of curriculum design.</li> <li>• Compare at least four curriculum design models.</li> </ul>
	CLO 6. Analyse curriculum content (NTS 2a, 2b, 2c,2e. 2f, p. 13; 3e-3o, p. 14)	<ul style="list-style-type: none"> <li>• Explain curriculum content</li> <li>• Identify the sources of curriculum content</li> <li>• Describe the criteria and important considerations for the selection of curriculum content.</li> <li>• Describe the criteria and important considerations for the organization of curriculum content.</li> </ul>
	CLO 7. Describe curriculum implementation (NTS 2a, 2b, 2c,2e. 2f, p. 13; 3e-3o, p.	<ul style="list-style-type: none"> <li>• Explain curriculum implementation</li> <li>• Describe four factors that influence curriculum</li> </ul>

	14)			implementation
				<ul style="list-style-type: none"> <li>Identify the determinants of curriculum implementation</li> </ul>
	CLO 8. Explain curriculum evaluation (NTS 2c, 2e p. 13, 3h, 3j, p. 14).			<ul style="list-style-type: none"> <li>Describe curriculum evaluation in their own way</li> <li>Distinguish among the forms of evaluation.</li> <li>Describe the functions of curriculum evaluation.</li> <li>Explain how to evaluate your class syllabus or school curriculum</li> </ul>
	CLO 9. Analyze curriculum development (NTS 2a, 2b, 2c,2e. 2f, p. 13; 3e-3o, p. 14)			<ul style="list-style-type: none"> <li>Explain Curriculum Development</li> <li>Describe the stages and steps in the curriculum development process</li> <li>Describe the factors that influence planning and development</li> </ul>
	CLO 10. Explain curriculum analysis (NTS 2c, 2e p. 13, 3h, 3j, p. 14).			<ul style="list-style-type: none"> <li>Describe Curriculum Analysis</li> <li>Explain method and tools used in curriculum analysis</li> </ul>
	CLO 11. Analyze textbooks and teaching syllabuses (NTS 2a, 2b, 2c,2e. 2f, p. 13; 3e-3o, p. 14)			<ul style="list-style-type: none"> <li>Develop a framework to analyze at least two of the following curriculum materials</li> </ul> <ol style="list-style-type: none"> <li>Teaching Syllabus for Natural Science (Lower Primary)</li> <li>Teaching Syllabus for Integrated Science (Upper Primary)</li> <li>Teaching Syllabus for Integrated Science (JHS)</li> <li>Textbooks for Natural Science (Lower Primary)</li> <li>Textbook for Integrated Science (Upper Primary)</li> <li>Textbook for Integrated Science (JHS)</li> </ol>
Course Content	Units	Topics	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes

1	What is Curriculum?	1.1 What is curriculum? 1.2 Characteristics of Curriculum 1.3 Elements of Curriculum 1.4 Curriculum Perspectives 1.5 Types of curriculum	<ul style="list-style-type: none"> <li>a. Pair students (cooperative learning) and ask them to think and share ideas on sub-topics 1.1, 1.2 and 1.3. followed by a general class discussion</li> <li>b. Use lecturette method to teach sub-topics 1.4 and 1.5</li> </ul>
2	Curriculum Design		<ul style="list-style-type: none"> <li>a. Class discussion on the organization of the components of curriculum</li> </ul>
3	Models of Curriculum Design		<ul style="list-style-type: none"> <li>a. Class discussion on the models of curriculum</li> <li>b. Using cooperative learning, put students in groups (5-6 students per group) and ask them to differentiate between Tyler (1949) and Taba (1962) curriculum models</li> </ul>
4	Curriculum Content		<ul style="list-style-type: none"> <li>a. Discuss the content of what curriculum developers want students to learn: <ul style="list-style-type: none"> <li>- Sources of curriculum content</li> <li>- Criteria for selecting content</li> <li>- Scope and sequence in the organization of the curriculum content</li> </ul> </li> </ul>
5	Curriculum Implementation		<ul style="list-style-type: none"> <li>a. Student presentation and class discussion on the following: <ul style="list-style-type: none"> <li>- What is curriculum implementation?</li> <li>- Factors that influence curriculum implementation</li> <li>- Identify determinants of curriculum implementation</li> </ul> </li> <li>b. School visit to observe the transactions of</li> </ul>

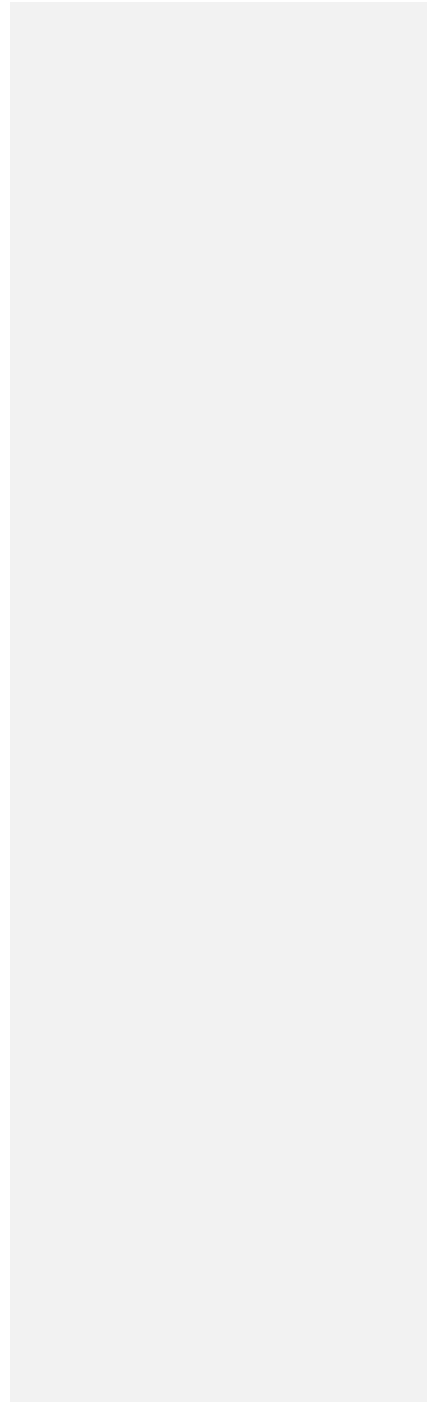
				<p>the curriculum and write a report on the observation</p> <ul style="list-style-type: none"> <li>c. Students present their reports in class for a general discussion</li> <li>d. Students watch a videos of how curriculum is implemented in Australia, Czech Republic, Japan, Netherlands and USA and compare with the situation in Ghana</li> </ul>
6	Curriculum Evaluation	<p>6.1 What is curriculum evaluation</p> <p>6.2 Forms of evaluation</p> <p>6.3 Curriculum evaluation approaches</p> <p>6.4 Functions of curriculum evaluation</p> <p>6.5 Evaluation methods and tools</p>		<ul style="list-style-type: none"> <li>a. Using cooperative learning, put students in groups (5-6 students per group) and ask them to discuss sub-topics 6.1, 6.2, 6.3, 6.4 and 6.5 to be followed by a general class discussion</li> <li>b. Let students discuss how to evaluate the school curriculum in their respective groups and present their views in class</li> </ul>
7	Curriculum Development and Analysis	<p>1.1 What is Curriculum Development</p> <p>1.2 Stages and steps in the curriculum development process</p> <p>1.3 Factors that influence planning and development</p> <p>1.4 What is Curriculum Analysis</p> <p>1.5 Curriculum analysis method and tools</p>		<ul style="list-style-type: none"> <li>a. Discuss curriculum development process and the factors that influence this process with students</li> <li>b. Discuss curriculum analysis and the method/tools of analysis</li> <li>c. Let students analyze and discuss how to evaluate the school curriculum in their respective groups and present their views in class</li> </ul>

	8	Study of Curriculum Materials	Textbooks and Teaching Syllabus for Natural Science (Lower Primary)	<ul style="list-style-type: none"> <li>a. Let students work in groups to examine the general aims, importance, content, profile dimensions, etc. of the Teaching Syllabus for Natural Science</li> <li>b. Visit to basic schools to observe the usage of teachers' textbooks, students' textbooks, and the syllabus</li> <li>c. Let students analyze teacher's textbook and the syllabus and discuss their findings in class</li> </ul>
			Textbooks and Teaching Syllabus for Integrated Science (Upper Primary)	<ul style="list-style-type: none"> <li>a. Let students work in groups to examine the general aims, importance, content, profile dimensions, etc. of the Teaching Syllabus for Integrated Science (Upper Primary)</li> <li>b. Visit to basic schools to observe the usage of teachers' textbooks, students' textbooks, and the syllabus</li> <li>c. Let students analyze teacher's textbook and the syllabus and discuss their findings in class</li> </ul>

			Textbooks and Teaching Syllabus for Integrated Science (JHS)	<ul style="list-style-type: none"> <li>a. Let students work in groups to examine the general aims, importance, content, profile dimensions, etc. of the Teaching Syllabus for Integrated Science</li> <li>b. Visit to basic schools to observe the usage of teachers' textbooks, students' textbooks, and the syllabus</li> <li>c. Let students analyze teacher's textbook and the syllabus and discuss their findings in class</li> </ul>
Course Assessment (Educative assessment: of, for and as learning)	<p><b>Component 1:</b> Formative assessment (quizzes, class tests, class exercises, and assignments)  Summary of Assessment Method: Quizzes, class test, class exercises and assignments on Units1 – 4 (core skills to be developed: critical thinking , creativity, and personal development)  Assessment Weighting: 20%  Assesses Learning Outcomes: CLO 1, 2, 3, 4, 5 and 6 (Units1 - 4)</p> <p><b>Component 2:</b> Formative assessment (group and/or individual presentation)  Summary of Assessment Method: Group and/or individual presentation on Units 5, 6, 7 and 8 (core skills to be developed are effective communicative skills, collaborative skills, critical thinking skills, teaching skills).  Students will be involved in assessing their colleagues (peer assessment)  Assessment Weighting: 20%  Assesses Learning Outcomes: CLO 7, 8, 9, 10 and 11(Units 5, 6, 7 and 8)</p> <p><b>Component 3:</b> Summative assessment  Summary of Assessment Method: End of semester examination (composed of multiple choice questions and essay-type questions) on Units 1 to 8 (core skills to be developed: critical thinking, creative thinking, problem solving, innovation, and personal development)  Weighting: 60%  Assesses Learning Outcomes: CLO 1- 11 (Units 1 – 8)</p> <p>The grading system will be guided by the following:</p>			



	A=80-100%; B+=75-79%; B =70-74%, C+ =65-69%, C= 60-64%, D+ = 55-59, D = 50-54, <b>FAIL</b> <50
Instructional Resources	<p>15. Textbooks and syllabuses.</p> <p>7. Teaching Syllabus for Natural Science (Lower Primary)</p> <p>8. Teaching Syllabus for Integrated Science (Upper Primary)</p> <p>9. Teaching Syllabus for Integrated Science (JHS)</p> <p>10. Textbooks for Natural Science (Lower Primary)</p> <p>11. Textbooks for Integrated Science (Upper Primary)</p> <p>12. Textbook for Integrated Science (JHS)</p> <p>16. Computers (with internet connectivity) and projector</p> <p>17. Visits to basic schools</p>
Required Text (core)	<p>Gronlund, N.E. (1985). Stating objectives for classroom instruction. (3<sup>rd</sup> ed.). New York: Macmillan Publishing Company</p> <p>Igwebuike, T. B. (2015). Curriculum Planning and Development: Principles and Practice. Lexington: KY</p> <p>Ministry of Education (2012). Teaching syllabus for integrated science, JHS. Accra: CRDD.</p> <p>Ministry of Education (2012). Teaching syllabus for integrated science, upper primary Accra: CRDD.</p> <p>Ministry of Education (2012). Teaching syllabus for natural science, lower primary. Accra: CRDD</p> <p>Oliva, P. F. &amp; Gordon II, W. R. (2012). Developing the Curriculum. USA: Pearson</p> <p>Pinar, W., Reynolds, W., Slattery, P., &amp; Taubman, P. (1995). Understanding Curriculum: An introduction to the study of historical and contemporary curriculum discourses. New York: Peter Lang</p> <p>Slattery, P. (2006). Curriculum Development in the Postmodern Era: Teaching and Learning in an Age of Accountability (2<sup>nd</sup> ed.). London: Routledge.</p> <p>Tyler, R. W. (2010). Basic Principles of Curriculum Development and Instruction. Chicago: University of Chiocago Press.</p>
Additional Reading List	<p>Roth. K. J., Druker, S. L., Garnier, H. E., Lemmens, M., Chen, C., Kawanaka, T., Rasmussen, D., Trubacova S., Warvi, D., Okamoto, Y., Gonzales, P., Stigler, J. and Gallimore, R. (2006). Teaching Science in Five Countries: Results from the TIMSS 1999 video study. U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.</p>



## GENERAL CURRICULUM STUDIES

### CONTEXT

Teachers play crucial role in the process of curriculum delivery because they are the mediators between the curriculum and the learners. Their interpretation of the curriculum affects the implementation of the curriculum and the learning outcomes of students. It is therefore important to equip prospective teachers with the knowledge and skills they need to effectively implement curriculum at the basic school level. This course orients the prospective basic school teacher to the basic school curriculum and other basic curriculum materials such as textbooks and teachers' guide and how they are used to promote effective teaching and learning.

Course Title	General Curriculum Studies						
Course Code	EBS 215J	Course Level:	200	Credit Value:	3	Semester	1
Pre-requisite							
Course Delivery Modes	Face -to -face <sup>1</sup>	Practical Activity <sup>2</sup>	Work-Based Learning <sup>3</sup>	Seminars <sup>4</sup>	Independent Study <sup>5</sup>	e-learning opportunities <sup>6</sup>	Practicum <sup>7</sup>
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	This course is designed to offer students the opportunity to discuss the structure and content of the school curriculum. Topics to discuss include, the concept of curriculum including the components of curriculum, differences between syllabus and curriculum, types of curriculum and factors affecting the sequencing of the content of the curriculum. Students will also be given the opportunity to discuss the general and specific objectives of the curriculum, as well as the mode of instruction and assessment prescribed in the curriculum. Course discussions will also include an emphasis on the standards-based curriculum, by focusing on the differences between objective-based and standards-based curriculum, terminologies associated with standards-based curriculum and issues such as, assessment, expectations/roles of teachers in implementing standards-based curriculum. Also covered in this course are age specific issues such as the similarities and difference between the primary school curriculum and the junior high schools curriculum and their implications for						

	curriculum implementation. The approaches that would be used in the delivery of this course would prepare trainees to ensure the learning progress of all students by projecting gender roles and issues relating to equity and inclusivity. NTECF, p20, NTS 1a, 1c and 1f p12.; NTS 2b, 2c, 2d and 2f, p13; NTS 3f, 3k, 3o and 3p, p14.	
Course Learning Outcomes <sup>8</sup> : including INDICATORS for each learning outcome	Outcomes: The course will enable students to be able to:	Indicators
	7. explain what curriculum is. NTS 1c & 1f, p12; 2b, 2c & 2d, p13; 3k p14.	1.5 Explain what curriculum is, giving examples 1.6 Explain what syllabus is, giving examples
	8. distinguish between curriculum and topical outline of content that should be covered in the curriculum. NTS 1c & 1f, p12; 2b, 2c & 2d, p13; 3k p14.	2.1 explain the difference between curriculum and syllabus 2.2 explain the relationship between the general objectives of curriculum and specific objectives
	9. explain the structure and content of school curriculum. NTS 1c & 1f, p12; 2b, 2c & 2d, p13; 3k, 3o, 3p, p14.	3.9 describe the general features of the school curriculum 3.10 Provide the overview of the content of the school curriculum (including the profile dimensions and their implication for teaching and assessment). 3.11 Explain issues relating to sequencing and progression of topics 3.12 Explain the relationship between concepts and their implications for teaching
	4.0 explain the relationship between the general objectives and specific objectives of the curriculum NTS 1c & 1f, p12; 2b, 2c & 2d p13; 3k p14.	4.1 outline and explain the relationship between the general objectives and specific objectives of the basic school curriculum. 4.2 outline and explain the implications of the relationship between the general objectives and specific objectives for teaching and learning
	5.0 explain why teachers should have in-depth knowledge about the whole curriculum but not only topical outline of content to be covered. NTS 1c & 1f, p12; 2b, 2c & 2d, p13; 3k p14.	5.1 outline and explain the reasons why teachers need to properly digest the rationale, the general aims and objectives, the specific minimum objectives, national minimum standard, the scope of the syllabus, approaches to teaching and learning among others before they start using the curriculum to teach.

	6.0 distinguish between objective-based curriculum and standard-based curriculum. NTS 1c & 1f, p12; 2b, 2c & 2d p13; 3k p14.			6.1 explain what objective-based curriculum is. 6.2 explain what standard-based curriculum is 6.3 explain the distinction between objective-based and standard-based curriculum.
	7.0 apply the knowledge gained through the course to implement both objective-based curriculum and standard-based curriculum. NTS 1a, 1c & 1f, p12; 2b, 2c, 2d & 2f, p13; 3f, 3k, 30 & 3p, p14.			7.7 outline and explain the processes involved in the implementation of objective-based curriculum 7.8 outline and explain the processes involved in the implementation of standard-based curriculum 7.9 explain the need to take factors such as cultural, linguistic and socio-economic background of students into consideration in implementing the school curriculum.
	8.0 Outline and explain the basic curriculum materials and how they are used to promote learning at the basic school level. NTS 1c & 1f, p12; 2b, 2c, 2d & 2f, p13; 3k p14.			8.1 Define what basic curriculum materials are 8.2 identify the various basic curriculum materials 8.3 outline and explain the criteria for selection of the various curriculum materials 8.4 demonstrate the use of each of the curriculum materials
	9.0 Outline and explain the similarities and differences between primary and junior high schools curriculum and their implications for curriculum delivery.			9.1 Demonstrate the understanding of the similarities and differences between the primary school curriculum and junior high school curriculum. 9.2 Demonstrate the implications of 9.1 above on curriculum delivery.
Course Content	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes

	1	Meaning of Curriculum	<ul style="list-style-type: none"> <li>- Explanation of curriculum</li> <li>- Explanation of syllabus</li> </ul>	<ul style="list-style-type: none"> <li>- Project for students to explore the various conceptualizations of curriculum and syllabus in literature, in mixed ability groupings.</li> <li>- Discussion of what is a curriculum and what is a syllabus to create a shared understanding of the meaning of these two constructs.</li> </ul> <p><b>NB:</b> For each of the approaches, encourage female trainees to play major roles, especially they should be given leadership responsibility. This will prepare them to be able to provide equal opportunities for boys and girls when they become qualified teachers.</p>
	2	Distinction between curriculum and syllabus	<ul style="list-style-type: none"> <li>- Difference between curriculum and syllabus</li> </ul>	<ul style="list-style-type: none"> <li>- Debates on a theme that will enable trainees to understand the distinction between curriculum and syllabus. For example. “Curriculum mean different thing to different people”</li> <li>- Discussion method will be used to provide the opportunity to create a shared understanding of the distinction between curriculum and syllabus.</li> </ul>
	3	The structure and content of the Ghanaian Basic school curriculum	<ul style="list-style-type: none"> <li>- General features of the school curriculum</li> <li>- Overview of the content of the school curriculum</li> <li>- Sequencing and progression of topics</li> <li>- Comparison between the structure and content of the Ghanaian basic school curriculum and that of some developed countries</li> </ul>	<ul style="list-style-type: none"> <li>- Case Study/Project for groups (mixed ability groups) of trainees to study the general features, content, and sequencing and progression of topics in the school curriculum in one subject area at the basic school level.</li> <li>- Use jigsaw method to help trainees to discuss the general features, content, and sequencing and progression of topics in the various school curricula they studied in their previous case study groups</li> <li>- Use the question and answer method to summarise the features of the school curriculum, the overview of the content of the curriculum and sequencing and progression of topics.</li> <li>- Compare the structure and content of the Ghanaian basic</li> </ul>

				school curriculum and that of the of some developed countries
	4	Objectives of the Ghanaian Basic school curriculum	<ul style="list-style-type: none"> <li>- The relationship between the general objectives and specific objectives of the curriculum</li> </ul>	<ul style="list-style-type: none"> <li>- Use jigsaw method to get students to investigate the relationship between the general objectives and specific objectives in one subject area at the basic school level.</li> <li>- Use discussion method to summarise the relationship between the general objectives and the specific objectives</li> </ul>
	5	Why the study of the school curriculum?		<ul style="list-style-type: none"> <li>- Use discussion method to explain why teachers need to acquire in-depth understanding of whole curriculum (including the general aims and objectives of the curriculum) but not only topical outline of contents.</li> </ul>
	6	Types of curriculum	<ul style="list-style-type: none"> <li>- Objective-based curriculum</li> <li>- Standard-based curriculum</li> <li>- Distinction between objective-based and standard-based curriculum</li> </ul>	<ul style="list-style-type: none"> <li>- Use discussion method to explain what objective-based curriculum and standard-based curriculum are, and the distinction between the two types of curriculum.</li> </ul>
	7	Processes involved in curriculum implementation/delivery	<ul style="list-style-type: none"> <li>- Implementation of objective-based curriculum</li> <li>- Implementation of standard-based curriculum</li> </ul>	<ul style="list-style-type: none"> <li>- Give students project on the processes involved in the implementation of either objective-based or standard-based curriculum, using some specific examples.</li> <li>- Use question and answer method to summarise the processes involved in the implementation of objective-based curriculum and standard-based curriculum.</li> <li>- Discuss the need to take factors such as cultural, linguistic and socio-economic background of students into consideration in implementing the school curriculum.</li> </ul>
	8	The basic curriculum materials and	<ul style="list-style-type: none"> <li>- Definition of basic curriculum materials and examples</li> </ul>	<ul style="list-style-type: none"> <li>- Use discussion method to explain what curriculum materials are, giving some examples.</li> <li>- Give students project in mixed-ability groups to explore</li> </ul>

		how they are used to promote leaning	<ul style="list-style-type: none"> <li>- How to use the various curriculum materials such as textbooks and teachers guide to promote effective teaching</li> </ul>	<p>the use of various curriculum materials to promote effective teaching.</p> <ul style="list-style-type: none"> <li>- Use discussion method to summarize the main processes involved in the use of each of the basic curriculum materials.</li> </ul>
	9	Age specific issues in curriculum	<ul style="list-style-type: none"> <li>- Similarities and differences between the nature and the content onn the primary and JHS schools curriculum and their implications for curriculum delivery</li> </ul>	<ul style="list-style-type: none"> <li>- Group project on the Similarities and differences between the nature and the content onn the primary and JHS schools curriculum and their implications for curriculum delivery. Encourage females to lead some of the groups to deal with gender stereotypes.</li> </ul>
Course Assessment Components <sup>9</sup> : (Educative assessment of, for and as learning)	<p><b>Component 1:</b> Formative Assessment (Assignments, Project and Presentations)</p> <p>Summary of Assessment Method:</p> <p>5. Class assignment on the meaning of curriculum and distinction between curriculum and syllabus and the types of curriculum.</p> <p>Assesses CLO 1, 2 and 6</p> <p>6. Projects and presentations on the structure and content of the Ghanaian basic school curriculum and processes involved in the implementation objective-based and standard-based curriculum. Students' portfolio on the projects will also be assessed.</p> <p>Assesses CLO 3 and 8</p> <p>Weighting 30%</p>			
	<p><b>Component 2:</b> Formative Assessment (Quiz)</p> <p>Summary of Assessment Method: Quiz on objectives of the Ghanaian basic school curriculum, why the study of the basic school curriculum and the basic curriculum materials</p> <p>Assesses CLO 4, 5 and 8</p> <p>Weighting 10%</p>			
	<p><b>Component 3:</b> Summative Assessment</p> <p>End-of-Semester examinations to assess CLO 1 - 8.</p> <p>Weighting 60%</p>			



Instructional Resources	<p>9. Basic school curriculum and other curriculum materials from Ghana and other developed countries</p> <p>10. Computer and accessories</p> <p>11. Projector</p> <p>12. Internet Resources</p>
Required Text (core)	<p>Cullen, R., Harris, M., &amp; Hill, R. R. (2012). <i>The learner-centred curriculum: Design and implementation</i>. England: John Wiley &amp; sons.</p> <p>Goodson, I. (1987). <i>School subject and curriculum Change 2<sup>nd</sup> edition</i>. New York: the Falmer Press.</p> <p>Grossman, P., &amp; Thompson, C. (2004). <i>Curriculum materials: Scaffolds for new teacher learning?</i> Washington, Centre for the Study of Teaching and Policy, University of Washington.</p> <p>Hargreaves, H. D. (1982). <i>The Challenges for the Comprehensive School, Culture, Curriculum and Community</i> 4<sup>th</sup> Edition. London: Routledge and Kegan Paul.</p> <p>Nacino- Brown, R. et al. (1985). <i>Curriculum and Instruction – An Introduction to methods of teaching</i>. London: Macmillan Publisher Ltd.</p>

## CONSTRUCTION TECHNOLOGY I (SUBSTRUCTURE CONSTRUCTION)

### Context

Global education is gradually shifting from general education to vocational and technical education. This is intended to increase skill training and decrease unemployment. Technical Education has been recognised as a vital segment of Ghana's educational system and human resource development initiative for producing the requisite skilled manpower needs for the overall development of the nation. It is therefore imperative that technical teachers are equipped with a solid foundation of knowledge, skills and attitudes which will boost their confidence so as to enable them teach effectively at the JHS level. Teaching methods in trade areas are different from those for traditional general education. However, the present teacher training system gives teachers less opportunities to be exposed to such modern contents, methodologies and media for teaching.

Course Title	Construction Technology I (Substructure Construction)						
Course Code	EBS 256	Course Level:	200	Credit Value:	2	Semester	1
Pre-requisite	Pre-Technical Skills, Creative Arts, Graphic Communication, and English Language, Workshop Management						
Course Delivering Mode	Face-to- face ■	Practical Activity ■	Work-Base Learning	Seminars	Independent Study ■	e-learning opportunities	Practicum
Course Description for significant learning (indicate NTS, NTECF, BSC, GLE to be addressed)	This course is designed to equip students with the knowledge and skills needed to select and use appropriate tools and manipulative skills in working the materials in building construction. The key issues surrounding site investigations and excavations are also explored and include tools and equipment required, maintaining faces of excavation, shoring, underpinning, piling and other sub-structure operations such as foundations, footings, hardcore filling and oversite concrete. The design and erection of temporary structures to support construction works during the course of a project are examined in detail. (NTECF; NTS 2b 2c)						

Course Learning Outcome: including INDICATORS for each learning outcome	Outcomes: Student will be able to:			Indicators
	CLO 1. demonstrate knowledge and understanding of materials and tools used in substructure construction NTS 2b 2c			1. Identify the appropriate materials and tools use in substructure construction
	CLO 2. demonstrate knowledge and understanding of preliminary site works NTS 2b 2c			1. State and explain preliminary site works
	CLO 3. demonstrate knowledge and understanding of substructure construction processes NTS 2b 2c			2. Make power point presentation on the stages involved in substructure construction
	CLO4. demonstrate knowledge and understanding of concrete practices NTS 2b 2c			3. Make a power point presentation on concrete practices
Course Content	Unit:	Topics:	Sub-topics:	Teaching and learning activities to achieve learning outcomes
	1	Materials and tools used in substructure construction	<ul style="list-style-type: none"> <li>Materials used in substructure construction</li> <li>Tools and processes</li> </ul>	Use educational visits to construction sites, Use student teachers report on their educational visit to construction sites to discuss materials and tools used in substructure construction.
	2	Preliminary Site Works	<ul style="list-style-type: none"> <li>General purposes of a building</li> <li>Site selection</li> <li>Land acquisition and development</li> <li>Site Preparation</li> </ul>	<p>Through discussion lead student teachers to state the purpose of a building and the general precautions in selection of site for a building</p> <p>Initiate discussion with student teachers about land acquisition and development. Make a power point presentation on the processes involve in land acquisition and development.</p>

	3	Substructure Construction Processes	<ul style="list-style-type: none"> <li>• Site selection</li> <li>• Site Preparations</li> <li>• Setting out of buildings</li> <li>• Excavation of trenches</li> <li>• trench side support</li> <li>• Foundations</li> <li>• Footing course</li> <li>• Floors</li> </ul>	Use educational visit to site to observe site preparation and substructure construction processes. Use student teachers report on their educational visit to construction sites to discuss and make group presentation (power point) of substructure construction processes. Use videos and animations from known technical education sites online or previous orientation to enhance delivery. (being mindful of equity and inclusivity)						
	4	Concrete Practices	Properties of concrete- Concrete practices (batching, mixing, transporting, placing, compacting and curing.), mass and reinforced concrete, casting concrete, curing of concrete, uses of concrete and formwork.	Make a power point presentation and lead student teachers to discuss the properties of concrete, and concrete practices Use simulations and pre-video recordings from sources such as YouTube, Khan Academy, Coursera, Udemy, MOOCs to demonstrate and discuss concrete practices. Note: Encourage female student teachers to participate fully						
Course Assessment Components (Educative assessment of, for and as Learning)	<p>Formative assessment (Individual and group tasks)</p> <table border="0"> <tr> <td>Class Assignment (individual)</td> <td>10%</td> </tr> <tr> <td>Project work (individual)</td> <td>10%</td> </tr> <tr> <td>Group project work</td> <td>20%</td> </tr> </table> <p>Weighting: 40%</p> <p>Summative Assessment: End of Semester Examination Weighting: 60%</p> <p>Students will be graded as follows: <b>A</b>=80-100%; <b>B+</b>=75-79%; <b>B</b> =70-74%, <b>C+</b> =65-69%, <b>C</b>= 60-64%, <b>D+</b>=55-59, <b>D</b>=50-54, <b>E</b>&lt; 50 (Fail)</p>				Class Assignment (individual)	10%	Project work (individual)	10%	Group project work	20%
Class Assignment (individual)	10%									
Project work (individual)	10%									
Group project work	20%									

Instructional Resource	Textbook, Chart, Pictures, Projectors and Computers, Audio-visuals and animations from YouTube.
Required References	Barry, R. (1996). The Construction of Buildings (2 <sup>nd</sup> ed). London. UK: ELBS Publishing Chudley, R. & Greeno, R., (2006). Advanced construction Technology (4 <sup>th</sup> ed.) Pearson Education Ltd. England Hans, B. (2001). Building construction Details. Delhi, India: CBS Publishing Walton, D. (1995). Building construction principles and practices. London. UK: Macmillan Education Ltd.

## WOOD TECHNOLOGY I (MATERIALS, TOOLS & PROCESSES)

### Context

Global education is gradually shifting from general education to vocational and technical education. This is intended to increase skill training and decrease unemployment. Technical Education has been recognised as a vital segment of Ghana’s educational system and human resource development initiative for producing the requisite skilled manpower needs for the overall development of the nation. It is therefore imperative that technical teachers are equipped with a solid foundation of knowledge, skills and attitudes which will boost their confidence so as to enable them teach effectively at the JHS level. Teaching methods in trade areas are different from those for traditional general education. However, the present teacher training system gives teachers less opportunities to be exposed to such modern contents, methodologies and media for teaching.

Course Title	<b>Wood Technology I (Materials, Tools &amp; Processes)</b>						
Course Code	EBS 232	Course Level:	200	Credit Value:	2	Semester	1
Pre-requisite	Workshop management in Technical Skills, Creative Arts, Graphic Communication, Science and, Mathematics, English Language						
Course Delivering Mode	Face-to-face ■	Practical Activity ■	Work-Base Learning	Seminars	Independent Study ■	e-learning opportunities	Practicum
Course Description for significant learning (indicate NTS, NTECF, BSC, GLE to be addressed)	This course is intended to develop in the students the knowledge, understanding and skills in working with materials for woodwork. It is also to enable students acquire the skills in using the various woodwork tools in the appropriate processes. This course also introduces students to the principles of furniture design. At the end of the course, students are supposed to design and make furniture using basic wood materials and tools. (NTECF; NTS 2b 2c)						

Course Learning Outcome:	Outcomes: Student will be able to	Indicators
including INDICATORS for each learning outcome	CLO 1. demonstrate knowledge and understanding of wood work machines (NTS 2b 2c)	1. Describe wood work machines and their uses
	CLO 2. demonstrate knowledge and understanding of various materials suitable for woodwork. (NTS 2b 2c)	2 Identify the various types of wood and their properties
	CLO3. determine the appropriate woodwork materials for a given work. (NTS 2b 2c)	3 Select the appropriate woodwork materials for a given work
	CLO 4 describe the various woodwork processes use for a given work. (NTS 2b 2c)	4. State the sequence of operation involved in the construction of a given work
	CLO 5. demonstrate the making of basic household and office items (ie. Furniture) using the wood work technology. (NTS 2b 2c)	5 Design and make basic house hold items using wood technology

Course Content	Unit:	Topics:	Sub-topics:	Teaching and learning activities to achieve learning outcomes
	1	Wood Materials	<ul style="list-style-type: none"> <li>• Solid Timber: Types: Odum, Wawa, Mahogany, Ofram, Emire and Sapele.</li> <li>• Manufactured Board: - Plywood, Block board, Laminated board.</li> <li>• Treatment of Timber: <ul style="list-style-type: none"> <li>-Conversion: Adv.&amp; Disadvantages</li> <li>-Seasoning: Adv. &amp; Disadvantages</li> </ul> </li> <li>• Calculation of moisture content (Wet- Dry/wet) *100 %</li> </ul>	<p>Use oral presentation of student teachers to discuss wood materials and their uses.</p> <p>Visit to wood workshop to observe the various methods use in the treatment of timber. Use student teachers report on their educational visit to discuss the advantages and disadvantages of seasoning and conversion of timber. Guide students to determine the moisture content in a timber.</p>
	2	Characteristics and Properties of Wood	<ul style="list-style-type: none"> <li>• Colour, strength, durability workabilities, weight,</li> </ul>	<p>Use educational visits to wood workshops/forest reserved. Use student teachers report on their educational visit to wood workshop/forest reserved to discuss the characteristics, properties and uses of wood observed.</p>



	3	Other Materials used in Wood Technology	Other materials used in wood technology: Bamboo, Glass, Rattan, Raffia, leather and formica	Through discussions lead students to mention other materials used in wood technology. Show pictures /videos of these materials to students and ask students to mention their uses.
	4	Types and Uses of Woodwork Machines	<p>Common woodwork machines</p> <ul style="list-style-type: none"> <li>• Band saw</li> <li>• lathe machine</li> <li>• Planer</li> <li>• Circular saw</li> </ul>	<p>Remind students of the safety measures at the workshop.</p> <p>Use educational visit to wood workshop to observe the various types of wood work machines. Using the report of the student teachers, discuss and explain the uses and operations of the machines. Use videos and animations from known technical education sites online to enhance delivery <b>(Involve the female students actively in the workshop activities to boost their interest)</b></p>

	5	Wood work Processes	<p>Measuring, marking out, cutting, holding, assembling (dry and permanent) operations using the following tools,</p> <ul style="list-style-type: none"> <li>• Sawing with- rip saw, cross cut saw, dovetail saw, tenon saw, bow saw, coping saw,</li> <li>• Boring with-brace and bit and breast drill.</li> <li>• Planning with – rough, trying, jack, smooth, rebate, plough planes.</li> </ul> <p>Jointing in wood technology:</p> <ul style="list-style-type: none"> <li>• Scarf; butt, halving,</li> <li>• framing,</li> <li>• dovetail</li> </ul>	<p>Make a visit to wood workshop and practically demonstrate to student teachers how the following operations are carried out: measuring, marking out, cutting, sawing, planning, boring, holding and assembling operations.</p> <p><b>(Involve the female students actively in the workshop activities to boost their interest)</b></p>
	6	Finishes	<p>Surface finishing of artefacts Using adhesives- PVA, contact glue</p> <p>Surface preparation with the following materials:</p> <ul style="list-style-type: none"> <li>• Abrasives –glass paper,</li> <li>• Finishes – lacquer, vanish, oil paint, sanding sealer, putty and thinner</li> </ul>	<p>Show pictures of different types of finishes. Through discussions, questions and answers technique lead students to mention different types of finishes for wood artefact.</p> <p>Note: Encourage female student teachers to participate fully</p>

<p>Course Assessment Components (Educative assessment of, for and as Learning)</p>	<p>Formative assessment (Individual and Group tasks)</p> <p>Class Exercise (individual) 10%</p> <p>Individual project work 10%</p> <p>Group project work 20%</p> <p>CLO 1-3</p> <p>Weighting: 40%</p> <p>Summative Assessment: End of semester examination</p> <p>Weighting: 60%</p> <p>CLO 1-5</p> <p>Students will be graded as follows:  <b>A</b>=80-100%; <b>B+</b>=75-79%; <b>B</b> =70-74%, <b>C+</b> =65-69%, <b>C</b>= 60-64%, <b>D+</b>=55-59, <b>D</b>=50-54, <b>E</b>&lt; 50 (Fail)</p>
<p>Instructional Resource</p>	<p>Text books, Chart, Pictures, Projectors and Computers, Audio-visuials and animations from YouTube</p>
<p>Required References</p>	<p>Amoakohene, S.K., Adu, S., Bour-Frimpong, S.V. &amp; Tsorgali, M. K. (2008). <i>Technical skills and drawing for teacher training colleges Book 1&amp;2</i>, Accra: Unimax MacMillan.</p> <p>Baafi, R. Y., Manu E. A. and Sackey, J.K.N., (1994). <i>Woodwork for senior secondary schools</i>. Ministry of Education. Accra Ghana: Buck Press Ltd.</p> <p>Day, D. and Jackson, A. (1997), <i>Wood worker's manual</i>. London: Harper Collins Publishers.</p> <p>Thompson R. (2005). <i>The chemistry of wood preservation</i>. Cambridge, England: Woodhead publishing Ltd.</p> <p>Walton, J. A. (1990). <i>Woodwork in theory and practice</i>. Random House: The Australian Publishing Company.</p>

## GHANAIAN LANGUAGE AND CULTURE-ESSAY WRITING

### CONTEXT

Students have been exposed to the syntactic rules and principles governing the writing of our various Ghanaian Languages. This course therefore offers them the opportunity to put into practice the knowledge acquired and apply it to writing of the various types of essay. The student teacher will be taken through the rudiment of essay writing: the paragraph, the topic sentence, the major support sentence, minor support sentence and how these relate to the thesis statement.

Course Title	Ghanaian Language and Culture-Essay Writing						
Course Code	EBS 233	Course Level 200	Credit value 3	Semester: Year Two Semester one			
Pre-requisite	N/A						
Course Delivery Modes	Face-to-face √	Practical Activity √	Work-based learning √	Seminars √	Independent Study √	e-learning opportunities √	Practicum
Course Description	<p>This course aims to equip students with the skill of writing well-structured essays in the Ghanaian Language and determine structural accuracy of given written essays. Emphasis will be laid on the main components of the essay such as the Paragraph (topic, sentence, major and minor support sentences), introduction, body and the conclusion.</p> <p>It will also look at the types of essay, which include descriptive, narrative, expository, and argumentative/ debate as well as letter writing (formal/informal). The course is designed to meet the following NTS, NTECF, BSC, GLE expectations and requirements: NTECF, (NTS1a,b:12), (NTS 2c:13), (NTS 2f:13), (NTS 3e:14), (NTS3j:14), .</p>						

Course learning outcome including INDICATORS for each learning outcome	Outcomes On the successful completion of the course student teacher will be able to	Indicators
	<p><b>CLO 1</b> Outline and explain the components of an essay (NTS)</p> <p><b>CLO 2</b> write descriptive, narrative, argumentative/debate, expository essays</p> <p><b>CLO 3</b> write formal/informal letters</p> <p><b>CLO 4</b> use the different forms of essay and letter writing appropriately in the Ghanaian Language</p>	<ul style="list-style-type: none"> <li>• be aware of the significance of their culture</li> <li>• acquire a comparative knowledge of their customs and that of other people</li> <li>• realize that language and culture are linked</li> <li>• enrich their vocabulary and terminology</li> </ul>

Course content	Units:	Topics:	Sub-topics:	Suggested Teaching Learning Activities
		The Essay: planning and Organization  The Paragraph  Identifying parts of the essay	<ul style="list-style-type: none"> <li>• Generating a topic</li> <li>• Narrowing the topic</li> <li>• Writing the outline</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss the topic</li> <li>• Use discussion to identify the ways of narrowing the topic</li> <li>• Discuss outlining of the topic</li> </ul>

		<p>Types of Essays</p> <p>Letter Writing</p>	<ul style="list-style-type: none"> <li>• Structure of a good paragraph</li> <li>• Characteristics of a good paragraph</li> <li>    Breakdowns</li> <li>• Controlling ideas</li> <li>• Topic sentence</li> <li>• Thesis statement in</li> <li>• The introductory paragraph</li> <li>• The Body paragraph</li> <li>• The concluding paragraph</li> <li>• Descriptive</li> <li>• Narrative</li> <li>• Expository</li> <li>• Argumentative</li> <li>• Formal Letters</li> <li>    Semi-Formal/ Informal letters</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate how paragraphing is structured</li> <li>• Ask students to write a paragraph</li> <li>• Identify the components/parts of a paragraph</li> <li>• Assess the quality of a paragraph based on paragraph structure</li> <li>• Identify features of a descriptive essay</li> <li>• Identify features of a narrative essay</li> <li>• Identify features of an Expository essay</li> <li>• Identify features of an Argumentative essay</li> <li>• Identify features of all types of letter writing.</li> <li>• Try their hands at each essay type</li> </ul>
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Course Assessment Component	<p><b>Component 1: Formative Assessment (Quizzes)</b>  Summary of Assessment Method  Quizzes: Class assessment would be based on quizzes. There will be quizzed on outlining and paragraphing.  Weighting 20%.  Assesses learning outcome: CLO 1</p>
	<p><b>Component 2: Formative Assessment (Individual assignments and group presentations)</b>  Summary of Assessment Method  Class Participation: Students must attend all lectures and must be punctual too. They are supposed to participate actively in class discussions and assignments.  Assignment: The assignment will assess the problem solving skills and student teacher ability to identify the principles, techniques and processes in essay writing.  Weighting 20%  Total Formative Assessment 40%  Assess learning outcomes: CLO 2 and 3</p>
	<p><b>Component 3: Summative Assessment (End of Semester Examinations)</b>  Summary of Assessment methods: An end of semester that encapsulates course learning outcomes (CLOs) 1 – 4, and make use a combination of the formative assessment methods in component one and two.  Demonstration: Problem solving, critical thinking and feedback.  Weighting 60%  Assesses learning outcomes: CLO 1,2,3 and 4</p>
Instructional Resources	<p>8. Language Laboratory  9. Sound recorder  10. LCD projector  11. Internet resources</p>
Required Text (core) Additional Reading Lists	<p>Adams, G. R. et al (1985): <i>Understanding Research Methods</i>, New York: Longman.  Amua-Sekyi, E. T. (1997). <i>Reading and Comprehension in Ghanaian Secondary Schools: A Review In Teaching English in Ghana</i>. A Handbook for Teachers, Kropp Dakubu M. E. (ed). Accra: SEDCO Enterprise.  Babbie, E. R. (1973): <i>Survey Research Methods</i>, CA Wadsworth, Belmont.</p>

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Gogovi, G. A. K., Gborsong, P. A. , Yankah, V. K., Essel, S. K., (nd). *Communicative Skills-Post Diploma in Basic Education Course Book for Continuing Education*, University of Cape Coast.

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## FOUNDATIONS OF TVET

### CONTEXT

There is dire ignorance about Technical, Vocational Education (TVET) in Ghana. This has resulted in biases and stereotypes in our societies toward the teaching and learning of TVET subjects. Inadequate knowledge about the relevance of TVET courses coupled with people's lack of knowledge about TVET has resulted in the need to offer a foundation course to student teachers which will help explain certain concepts in TVET, its objectives, principles and issues in TVET.

Course Title	Foundations of TVET						
Course Code	EBS 221	Course Level: 200	Credit value:	3	Semester	1	
Pre-requisite	Pre-technical skills, English language, Social studies						
Course Delivery Modes	Face-to-face <input checked="" type="checkbox"/>	Practical Activity <input type="checkbox"/>	Work-Based Learning <input checked="" type="checkbox"/>	Seminars <input checked="" type="checkbox"/>	Independent Study <input checked="" type="checkbox"/>	e-learning opportunities <input checked="" type="checkbox"/>	Practicum <input type="checkbox"/>
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	<p>This course is intended to give student teachers an understanding of the fundamental principles of Technical, Vocational Education and Training (TVET). The course will also help the student teacher to explore the goals of TVET and equip them with knowledge and understanding of the structure, content and challenges of TVET in Ghana and elsewhere. The course provides for student teachers to visit industries and school as part of their work based learning experience. Every aspect of student teachers' experience will be recorded in their journals and kept in their portfolios for reference and assessment purposes.</p> <p>After taking the course, student teachers will be able to use their knowledge and understanding of the entire TVET system and in turn assist pupils to understand the structure and content of TVET in Ghana, the fundamental principles of TVET and the various issues of TVET. Also, learners will appreciate the importance of different occupations in society and how they contribute to personal wellbeing and social growth.</p> <p>The assessment of, for and as learning to measure the achievement of the learning outcomes includes methods such as quizzes, oral presentations, project works, and the evaluation of their recorded experiences as recorded in their journals and portfolios. The course takes reference from NTECF; NTS 1b 1f; 1e; 1g; 2a, 2b 2c</p>						

Course learning Outcomes	Outcomes On successful completion, the Students teacher will be able to:	Indicators
	CLO1. demonstrate basic knowledge of the concepts of TVET such as Vocational Education, Technical Education, General Education and Training (NTS 2a, 2b, 2c, 3i)	1.1 Present Power-Point slides and cardboard charts indicating the differences and similarities between as many terminologies as possible including the differences between Technical Education, Vocational Education and Training
	CLO2. demonstrate knowledge and understanding of Personal goals of TVET, Social goals of TVET and Economic goals of TVET (NTS 2a, 2b, 2c)	2.1. Write down (in students' journals) the explanations of the different personal goals, social goals and the economic goals of TVET 2.2. Write down (in students' journals) the explanations of the two broad objectives of TVET namely: Trainability of the youth and employability of the youth.
	CLO 3. demonstrate knowledge and understanding of the structure and content of TVET in the various levels of Ghanaian education including the informal sector of TVET (NTS 2a, 2b, 2c)	3.1. Use PowerPoint presentations to explain the characteristics of the following delivery systems i. The formal TVET system ii. The informal (apprenticeship) TVET system iii. Private provision of TVET iv. The industrial-based provision of TVET v. Employer training 3.2. Lead a brainstorming session on the contribution of TVET in individual and national development. 3.3. Contribute in a group work about the topic of entrepreneurship education 3.4. Compare the Ghanaian TVET system with the German Dual System of TVET.

	CLO 4. demonstrate knowledge and understanding of the three main principles of TVET as presented by Miller (1985) (NTS 2a, 2b, 2c; NTECF pg. 55)		<p>4.1 Use internet resources to explore the meaning of “principles” as a phenomenon and keep the records in their portfolios</p> <p>4.2. Make PowerPoint presentations explaining the following.</p> <ul style="list-style-type: none"> <li>i. People-Related Principles of TVET</li> <li>ii. Programme-Related Principles of TVET and</li> <li>iii. Process-Related Principles</li> </ul> <p>4.3. Make PowerPoint presentation to explain the sub-principles under each of the main principles.</p> <p>4.4. Record (in student’s portfolios) how such principles are being followed in Ghana</p> <p>4.5. Suggest ways by which the principles that are not being followed could be fulfilled.</p>	
	CLO 5. demonstrate sound knowledge and understanding of TVET principles to come out with the issues and challenges of TVET (NTS 2a, 2b, 2c; NTECF pg. 55)		<p>5.1. Lead a seminar on at least three challenges of TVET in Ghana</p> <p>5.2. Lead a discussion on solutions for the identified challenges</p> <p>5.3. Record challenges and their solutions in student’s portfolio.</p>	
	CLO 6. Use the ideas from their understanding, knowledge and application of the course in teaching and learning to record their experiences into the Student Reflective Journals (SRJ) NTS 3i 3h; NTECF pg. 45		<p>5.1 Present a write up of reflections from the course in journals</p> <p>5.2 Share reflections on the application of the course in teaching and learning during industry and school visits recorded in SRJ with colleagues.</p>	
Course Content	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes

	1	Concepts and Terminologies in TVET	<ul style="list-style-type: none"> <li>• Global Definition and Explanation of Technical, Vocational Education and Training (TVET) as presented by UNESCO.</li> <li>• Global Definition and Explanation Technical Education</li> <li>• Global Definition and Explanation Vocational Education as presented by UNESCO</li> <li>• Global Definition and Explanation Training as presented by UNESCO</li> <li>• Full meaning of OE, VET, CTE, WE</li> </ul>	<ul style="list-style-type: none"> <li>• Use simulations and pre-video recordings from sources such as YouTube, Khan Academy, Coursera, Udemy, MOOCs to demonstrate and discuss the global definitions of the components of TVET E.g. Technical Vocational Education and Training</li> <li>• Teacher to lead students to make PowerPoint Presentations on the differences and similarities between as many terminologies as possible including the differences between Technical Education, Vocational Education and Training</li> <li>• Conduct a brainstorming session on the contribution of TVET to national community and personal and development</li> </ul>
	2	The Three Main Goals and Two Broad Objectives of TVET	<ul style="list-style-type: none"> <li>• Personal Goals of TVET</li> <li>• Social Goals of TVET</li> <li>• Economic goals of TVET</li> <li>• The Employability objective of TVET</li> <li>• The Trainability Objective of TVET</li> </ul>	<ul style="list-style-type: none"> <li>• Use PowerPoint presentations to demonstrate and discuss the following. <ul style="list-style-type: none"> <li>i. Personal Goals of TVET</li> <li>ii. Social Goals of TVET and</li> <li>iii. Economic goals of TVET</li> <li>iv. The Employability objective of TVET</li> <li>v. The Trainability Objective of TVET</li> </ul> </li> </ul>

	3	TVET Delivery Systems	<ul style="list-style-type: none"> <li>• The formal TVET system</li> <li>• The informal (apprenticeship) TVET system</li> <li>• Private provision of TVET</li> <li>• Industry-based provision of TVET</li> <li>• Employer training</li> <li>• Comparison of the Ghanaian TVET system with the German Dual System of TVET.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher to supervise a brainstorming session on the contribution of TVET in national development.</li> <li>• Use field trips to take notes on the following</li> </ul>
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	4	Principles of TVET	<ul style="list-style-type: none"> <li>• Meaning of Principles</li> <li>• People-related principles <ul style="list-style-type: none"> <li>i. Teachers</li> <li>ii. Lifelong learning</li> <li>iii. Needs</li> <li>iv. Placement and job entry</li> <li>v. Sex-bias Stereotyping</li> <li>vi. Special needs</li> <li>vii. Work ethic</li> <li>viii. Democratization</li> <li>ix. Guidance</li> </ul> </li> <li>• Programme-related principles <ul style="list-style-type: none"> <li>i. Safety</li> <li>ii. Families of Occupations</li> <li>iii. Curriculum</li> <li>iv. Comprehensive Education</li> <li>v. Supervised work Experience</li> <li>vi. Career Education</li> <li>vii. Innovation</li> </ul> </li> <li>• Process-related principles <ul style="list-style-type: none"> <li>i. Industrial Links</li> <li>ii. Articulation</li> <li>iii. Coordination</li> <li>iv. Follow-up</li> <li>v. Legislation</li> <li>vi. Planning</li> <li>vii. Research</li> <li>viii. Evaluation</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Tutor to lead a discussion session to introduce TVET principles</li> <li>• Organize group presentations on the following people-related principles <ul style="list-style-type: none"> <li>x. Teachers</li> <li>xi. Lifelong learning</li> <li>xii. Needs</li> <li>xiii. Placement and job entry</li> <li>xiv. Sex-bias Stereotyping</li> <li>xv. Special needs</li> <li>xvi. Work ethic</li> <li>xvii. Democratization</li> <li>xviii. Guidance</li> </ul> </li> <li>• Organize group presentations on the following Programme-related principles <ul style="list-style-type: none"> <li>i. Safety</li> <li>ii. Families of Occupations</li> <li>iii. Curriculum</li> <li>iv. Comprehensive Education</li> <li>v. Supervised work Experience</li> <li>vi. Career Education</li> <li>vii. Innovation</li> </ul> </li> <li>• Organize group presentations on the following Process-related principles <ul style="list-style-type: none"> <li>ix. Industrial Links</li> <li>x. Articulation</li> <li>xi. Coordination</li> <li>xii. Follow-up</li> <li>xiii. Legislation</li> <li>xiv. Planning</li> <li>xv. Research</li> <li>xvi. Evaluation</li> </ul> </li> </ul>
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	5	Entrepreneurship Education	<p>Fundamentals of entrepreneurship</p> <ul style="list-style-type: none"> <li>• Concepts of Entrepreneurship</li> <li>• Importance of Self-employment to Individuals and Families</li> <li>• Personal Entrepreneurial Traits</li> <li>• Forms of Business Ownership</li> <li>• Business Plan and Its Relevance</li> <li>• Development of Business Plans</li> </ul>	<ul style="list-style-type: none"> <li>• Cooperative Learning Techniques (Learning Together Model)</li> </ul> <p>I.e. Put student-teachers into groups of four- or five-members, give students the topics to be learnt and schedule time to share what they have learnt from their information gathering exercises and experiences.</p>
	6	TVET Challenges, Issues and Reflections of Learning outcomes of the Course	<ul style="list-style-type: none"> <li>• TVET Relevance</li> <li>• TVET Effectiveness</li> <li>• TVET Efficiency</li> <li>• Financing TVET</li> <li>• Assess Issues in TVET</li> <li>• Sex-Role and Sex bias Stereotyping in TVET</li> <li>• Mismatch Between Training and Labour</li> </ul> <p>Writing reflections in Student Reflective Journals (SRJ) from school visits (applying techniques of the teaching about the domains of TVET and how to use core values and 21<sup>st</sup> century competencies in developing attitudes and making informed decisions.</p>	<ul style="list-style-type: none"> <li>• <b>Know-want to know and learnt;</b> (initiate discussion with student teachers about how to write in SRJs.</li> <li>• Use core points and notes in the subtopics that have been recorded to discuss the importance of SRJs</li> <li>• Use a Cooperative Learning Technique such as the learning together model to share experiences from school and industry visits concerning the application of the outcomes of the course.</li> </ul>

<p>Course Assessment: (Educative assessment of, for and as learning)</p>	<p>Formative Assessment - Weighting (40%)  Student teachers assessed through <b>Class Assignment</b> with <b>Oral Presentation</b> on the following:</p> <ul style="list-style-type: none"> <li>• Present Power-Point and charts on the concepts and terminologies of TVET</li> <li>• Use PowerPoint to make presentations on goals and objectives of TVET</li> <li>• Group presentations on the principles of TVET.</li> </ul> <p>Learning Outcomes assessed: CLO1, CLO 2, CLO 3, CLO 4, and CLO 5.</p> <hr/> <p>Summative Assessment- End of Semester Examination  Students teachers are assessed by summative examination on:</p> <ul style="list-style-type: none"> <li>• The similarities and differences between terminologies and concepts of TVET</li> <li>• The goals and concepts of TVET</li> <li>• Structure and content of delivery systems of TVET</li> <li>• The principles of TVET</li> <li>• The Challenges and issues in TVET delivery</li> </ul> <p>Learning Outcomes assessed: CLO 1; CLO3; CLO 4, and CLO 5.  Weighting (60%)</p>
<p>Instructional Resources</p>	<ul style="list-style-type: none"> <li>• Computer that supports PowerPoint presentations</li> <li>• Posters of the list of the people-related Principles, Programme-related principles and process related principles.</li> <li>• Internet facility</li> </ul>
<p>Required Text (core)</p>	<ul style="list-style-type: none"> <li>• Millar, M.D., (1985). Principles and a philosophy of vocational education. National Center for Research in Vocational Education: Columbus</li> <li>• Pautler J.A (1990), (ED) Vocational education in the 1990,s Major issues. Ann Arbor, Michigan: Packet Publication Inc.</li> <li>• UNEVOC, (1996). The development of technical and vocational education in Africa. Dakar: International Center for Technical and Vocational Education and Training (UNEVOC).</li> </ul>
<p>Additional Reading List</p>	<p>Asamoah-Duodu, (2006). TVET in Ghana: A case study. Accra: Technical and Vocational Education Division Ghana Education Service</p> <p>Drucker, P. (1999), Innovate or die: Drucker on financial services, The Economist, No. September 25.</p> <p>Ghana Education Service (2000), Teaching Syllabus for Pre-Technical Skills and Drawing. CRDD: Accra.</p> <p>International Facilitators Society (2008) What is TVET according to UNEVOC. Latinoamérica: Otras Publicaciones Biblioteca Virtual.</p>





## ASSEMBLAGE AND CONSTRUCTION

### Context

There has been no well-coordinate effort to train teachers for the TVET (Visual Arts) sector. Teacher from the collages of Education were largely 'generalist' teacher with little or no orientation in the TVET (Visual Arts) domain. This course is designed to equip student teachers with specialization in visual arts. This will prepare the students to practice and teach visual art (Assemblage and Construction) well at Junior Secondary School level.

Course Title	ASSEMBLAGE AND CONSTRUCTION						
Course Code	EBS 201	Course Level:	200	Credit Value:	2	Semester	1
Pre-requisite	Arts and Creativity in Early Grade Education and Arts and Creativity in Upper Primary Education						
Course Delivering Mode	Face-to- face <b>X</b>	Practical Activity <b>X</b>	Work-Base Learning <b>X</b>	Seminars <b>X</b>	Independent Study <b>X</b>	e-learning opportunities <b>X</b>	Practicum <b>X</b>
Course Description for significant learning (indicate NTS, NTECF, BSC, GLE to be addressed)	<p>A beginning sculpture course that concentrates on the development or sculptural ideas through exploration of various materials and techniques used in assemblage and construction. Several introductory lectures and demonstrations should be considered with the bulk of the time dedicated to the completion of sculpture projects. Attention must be devoted to practical works which expose the student teachers to professional development. With a support from mentor, student teachers collaborate, with 2-4 teachers per a class to plan for and work with a small group or individual pupils, beginning to acquire the ability to consider children's learning, backgrounds and experience. NTECF; NTS 2c, p 13.</p>						
Course Learning Outcome: including INDICATORS for each learning outcome	<p>Outcomes: CLO1. Understand the concept of Assemblage and Construction. NTS 2c, p 13.</p>			<p>Indicators: 1.4 Discuss the concept of Assemblage and Construction. 1.5 Discuss the tools and materials used in Assemblage and Construction.</p>			

	<p>CLO 2. Understand the Socio-Economic importance of Assemblage and construction NTS 2c, p 13.</p> <p>CLO3. Apply the knowledge and skills in Assemblage and Construction. NTS 2c, p 13.</p> <p>CLO 4. Rationale for teaching and learning Assemblage and Construction NTS 2c, p 13.</p> <p>CLO 5. Vocations/Careers in Assemblage and Construction NTS 2c, p 13.</p>			<p>1.6 Describe the various techniques in Assemblage and Construction.</p> <p>2.2 Discuss Socio-Economic importance of Assemblage and construction</p> <p>3.3 Demonstrate knowledge and skills of techniques used in Assemblage and Construction.</p> <p>3.4 Use various materials and tools to Assemble and Construct. Sculpture pieces based on themes</p> <p>4.1 Discuss Rationale for teaching and learning Assemblage and Construction</p> <p>5.1 Classify Vocations/Careers in Assemblage and Construction</p> <p>5.2 Vocations/Careers in Assemblage and Constructio</p>
Course Content	Unit:	Topics:	Sub-topics:	Teaching and learning activities to achieve learning outcomes
	1	Assemblage and construction	<ul style="list-style-type: none"> <li>• Concept of Assemblage and construction</li> <li>• Socio-Economic importance of Assemblage and construction</li> <li>• Tools and materials</li> </ul>	<p>Lecturer discusses the concept of Assemblage and construction</p> <p>Discuss Socio-Economic importance of Assemblage and construction</p> <p>Shows examples of tools and materials to the student teachers. These should be real tools and materials or</p>

			<ul style="list-style-type: none"> <li>• Techniques in Assemblage and construction</li> <li>• Rationale for teaching and learning Assemblage and Construction</li> <li>• Vocations/Careers In Assemblage and Construction</li> </ul>	<p>pictures</p> <p>Demonstrate the technique of Assemblage and construction to the student teachers Student teachers practice such techniques</p> <p>Discuss the Rationales for teaching and learning Assemblage and Construction</p> <p>Classify Vocations/Careers in Assemblage and Construction Discuss the Vocations/Careers in Assemblage and Construction</p> <p><b>Note:</b> detail of the topic must be conceded</p>
Course Assessment Components (Educative assessment of, for and as Learning)	<p>Assessment component I (formative): Assess learning Outcomes: CLO unit 1 Weighting: Assignment 10%</p> <p>Presentation 10% Project 10% Quizzes 10%</p> <p>Assessment component II (summative): Assess learning Outcomes: CLO unit 1 Weighting: Examination 60%</p>			
Instructional Resource	Text books, computer, projector, journals, wood, metals, glue etc.			
Required Text (core)	Brown, C. W. (2010). <i>The sculpting Techniques bible</i> . New Jersey, USA:Chartwell Books Inc.			
Additional Readings	Dowson, J. (2012). <i>Making contemporary sculpture</i> . UK: Crowood press. Moszynska, A. (2013). <i>Sculpture now</i> . UK: Thames & Hudson			

	Williams, A. (1995). <i>Sculpture technique, form content</i> . United States of America: Davis Publication Inc.
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## COMPUTER GRAHICS II (ADOBE PHOTOSHOP)

### CONTEXT

Since the introduction of contemporary visual art education and practice in the Gold Coast in the 1920s, the method of instruction in formal and informal art education and renditions in industry remained manual until the introduction of computer technology in Ghana in the 1980s which subsequently ushered in computer aided design and reproduction in Ghana. Being a proactive technology, it has been rapidly accepted into all facets of the Ghanaian economy. To enable the student teachers to be current in technology and become competitive in global technology in art practice and education, it is important a course on computer application is included in this curriculum.

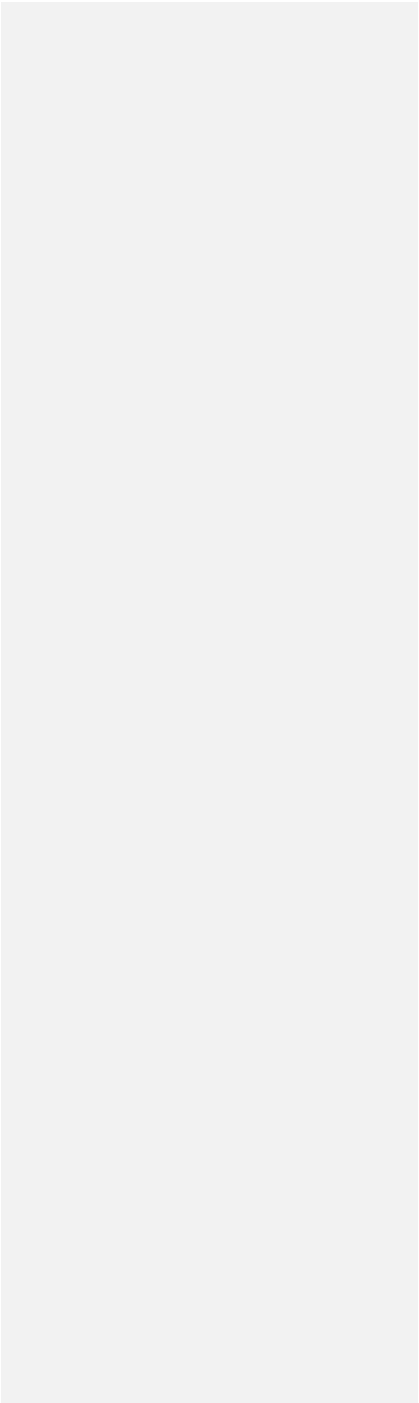
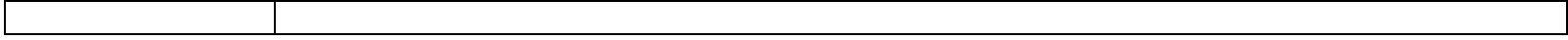
Course Title	COMPUTER GRAPHICS II (ADOBE PHOTOSHOP)						
Course Code	EBS 274	Course Level:	200	Credit Value:	3	Semester	1
Pre-requisite	Basic design and Computer Graphics						
Course Delivering Mode	Face-to- face X	Practical Activity X	Work-Base Learning X	Seminars X	Independent Study X	e-learning opportunities X	Practicum
Course Description for significant learning (indicate NTS, NTECF, BSC, GLE to be addressed)	<p>Course Description</p> <p>This course will introduce students to the principles and methods of applying current versions of Adobe Photoshop in digital imaging and visual communication. It will also expose them to various features, tools and applications in the software. The course will be delivered through practical demonstrations, lectures, discussions, industrial attachments, field trips and studio practice, etc. and it will be assessed through practical assignments, project work and jury.</p> <p>NTECF; NTS 1b, 1e lg: NTSp13 2c, 2e, NTS p 14, 3d, 3e, 3f</p>						
Course Learning Outcome: including INDICATORS for each learning	<p>Outcomes</p> <p>CLO 1.</p> <p>Demonstrate knowledge, understanding and skills in using tools and applications of Adobe Photo</p>			<p>Indicators</p> <p>1.1.Explain the principles of manipulating tools and applications in Adobe Photoshop</p> <p>1.2. Discuss the features and application in Adobe</p>			

<p>outcome</p>	<p>Shop NTS 1b, le lg: NTSp13 2c, 2e, NTS p 14, 3d, 3e, 3f</p> <p>Outcomes CLO 2. Demonstrate skills and knowledge in designing professional works with Adobe Photoshop NTS 1b, le lg: NTSp13 2c, 2e, NTS p 14, 3d, 3e, 3f</p> <p>Outcomes CLO 3. Demonstrate and knowledge and skills in writing a project write-up and hold an art exhibition NTS 1b, le lg: NTSp13 2c, 2e, NTS p 14, 3d, 3e, 3f</p>			<p>Photoshop and their applications in visual communication and teaching and learning.</p> <p>2.1. Manipulate Adobe Photoshop tools and applications to generate and manage text, colours, and edit photographs and use Adobe Photoshop to execute visual communication works for reproduction and for the electronic media.</p> <p>3.1. Prepare write-up on completed projects Hold exhibition</p>
<p>Course Content</p>	<p>Unit:</p>	<p>Topics:</p>	<p>Sub-topics:</p>	<p>Teaching and learning activities to achieve learning outcomes</p>
	<p>1</p>	<p>Adobe Photoshop interface</p>	<p>Components of the Adobe Photoshop interface: Property bar, tool box, colour palette, etc.</p>	<p>Unit 1. Using power point presentation, lead students to identify parts of Photoshop in and describe their functions</p>
	<p>2</p>	<p>Managing elements with Adobe Photoshop tools and applications</p>	<p>Text, image and colour management</p>	<p>Unit 2.1. Tutor must use practical demonstrations to guide student teachers to acquaint themselves with Adobe Photoshop applications and gradually guide them to manipulate tools and applications in the software and use them to generate and manage text, images, colour, edit photographs, plan layouts, etc.</p> <p>Unit 2.2</p>

	3	Digital designing	Design and production of artefacts with Adobe Photoshop	<p>Tutor must task student teachers to apply their skills in computer graphics to produce independent mini projects in communication design. E.g. Production of posters, labels, logos, books, brochures, leaflets, invoice, receipts, complementary cards, carrier bags, charts, digital lessons, photo-montage, etc. Students must present their works to class for jury.</p> <p>Unit 3.1. Tutor must task student teachers to apply their knowledge and skills in computer graphics, basic design, visual communication and research to identify artistic problem in education or industry and conduct independent or collaborative studio research into it and showcase the final products in a departmental exhibition. Note: Student teachers should be given the liberty to produce vector or interactive project provided it is scientific, logical, and creative and solves an artistic or educational problem.</p> <p>Unit 3.2. Student teachers must prepare a comprehensive write-up on their project and present together with the final project. The write-up must consist of evidence of work and aesthetic appreciation.</p> <p>Unit3.3. Student teachers must be attached to graphic design and multimedia businesses in the catchment area to observe how computer design is applied in industry and apply their skills in industry. Attachment students must be assigned to industrial mentors who should guide their conduct and</p>
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				activities throughout the attachment period and appraise them. The interns must prepare and submit attachment report and portfolio and defend them before a panel at school. The mentor must guide student teachers to observe safety rules and professional ethics during the attachment period.
Course Assessment Components (Educative assessment of, for and as Learning)	<p>Component 1: Formative Assessment (Weighting= 40%):</p> <ul style="list-style-type: none"> <li>▪ Quizzes, individual and group assignments, Field research, seminar presentations and jury= 15%</li> <li>▪ Portfolio presentation= 10%</li> <li>▪ Industrial attachment report write-up=10%</li> <li>▪ Oral Presentations of report= 5%</li> </ul> <p><b>Core skills to be developed:</b> Critical thinking, interpersonal and collaborative skills, presentation skills, creative skills and organisational skills Assessing learning outcomes: CLO 1-4 (Units 1- 6)</p> <p><b>Component 2: Summative assessment:</b> ( End of semester examination) Weighting=60%:</p> <p>3. Part A: Project work</p> <ul style="list-style-type: none"> <li>▪ Write-up=10%</li> <li>▪ Actual work:20%</li> </ul> <p>4. Part B: Written exams=30%</p> <p style="padding-left: 40px;">Total marks=100%</p> <p><b>Core skills to be developed:</b> Critical thinking, interpersonal and collaborative skills, research skills presentation skills, creative skills and organisational skills Assessing learning outcomes: CLO 1-4 (Units 1- 6)</p>			
Instructional Resource	Textbooks, journals, ICT tools, computer, Laptop, projector, Laser printers, scanners, digital camera, computer application software (Corel Draw, Adobe Illustrator, Adobe Photoshop, Adobe In-Design) etc.			
Required Text (core)	Shirley, P. (2010). Fundamentals of computer graphics. (3 <sup>rd</sup> Ed.). Boca Raton: CRC Press			
Additional Readings	<ol style="list-style-type: none"> <li>1. Simanowski, R. (2011). Digital art and meaning: reading kinetic poetry, text machines, mapping art, and interactive installations. London: University of Minnesota Press</li> <li>2. Christiane P. (2008). Digital art. London: Thames &amp; Hudson Ltd.</li> <li>3. Wands, B. (2011). Art of the digital age. New York: Thames &amp; Hudson</li> <li>4. Lopes, D. M. (2010). A philosophy of computer art: London: Routledge.</li> </ol>			





## LEATHER WORK

### CONTEXT

There has been no well-coordinate effort to train teachers for the TVET (Visual Arts) sector. Teacher from the collages of Education were largely 'generalist' teacher with little or no orientation in the TVET (Visual Arts) domain. This course is designed to equip student teachers with specialization in visual arts. This will prepare the students to practice and teach visual art well at Junior Secondary School level.

Course Title	LEATHER WORK						
Course Code	EBS 231	Course Level:	200	Credit Value:	2	Semester	1
Pre-requisite	Visual arts, Home economics Basic design technology, Arts and Creativity in Upper Primary Education						
Course Delivering Mode	Face-to- face	Practical Activity	Work-Base Learning	Seminars	Independent Study	e-learning opportunities	Practicum
Course Description for significant learning (indicate NTS, NTECF, BSC, GLE to be addressed)	<p>A beginning leather course that concentrates on the development of ideas through exploration of various materials and techniques. Several introductory lectures and demonstrations should be considered with the bulk of the time dedicated to the completion of leather projects. Attention must be devoted to the historical and aesthetic contexts, with the emphasis on the development of a personal visual vocabulary and the cultivation of individual creative expression.</p> <p>With a support from the mentor, student teachers collaborate, with 2-4 teachers per a class to plan for and work with a small group or individual pupils, beginning to acquire the ability to consider children's learning, backgrounds and experience. NTECF, NTS 1b, le lg: p12; 2c, 2e, p 13; 3d, 3e, 3f, p14.</p>						
Course Learning Outcome: including INDICATORS for each learning	<p>Outcomes:</p> <p>1.1 Understand "leather" and its importance, sources and uses. NTS 1b, le lg: p12; 2c, 2e, p 13; 3d, 3e, 3f, p14.</p> <p>1.2. Understand the concept of leather work NTS</p>			<p>Indicators:</p> <p>1.1 Discuss with the student-teacher the importance, sources and uses of leather. The potentials that exist in the leatherwork industry.</p> <p>1.2.1 Discuss the concept of leader work</p>			

outcome	<p>1b, le lg: p12; 2c, 2e, p 13; 3d, 3e, 3f, p14.</p> <p>2. Describe the basic tools and materials in leatherwork NTS 1b, le lg: p12; 2c, 2e, p 13; 3d, 3e, 3f, p14.</p> <p>3. Apply the knowledge to produce leather article NTS 1b, le lg: p12; 2c, 2e, p 13; 3d, 3e, 3f, p14.</p> <p>4. Apply the knowledge in leather decoration and finishing NTS 1b, le lg: p12; 2c, 2e, p 13; 3d, 3e, 3f, p14.</p>		<p>3.1 Show the basic tools and materials in leatherwork</p> <p>3.1 Produce leather articles by following the steps under the sub-topics</p> <p>4.1 Work together with student-teacher to decorate and finish leather by following the correct procedure and standards</p>	
Course Content	Unit:	Topics:	Sub-topics:	Teaching and learning activities to achieve learning outcomes
	1	Introduction to leatherwork	<ul style="list-style-type: none"> <li>• Concept of leather work</li> <li>• Classification of Leatherwork</li> </ul>	<p>1.1 Discuss with the student-teacher to understand and explain the meaning of leatherwork Discuss the socio-economic importance of leatherwork.</p>
	2	Basic tools and materials in leatherwork	<ul style="list-style-type: none"> <li>• Preparation of Leatherwork Tools</li> <li>• Leather-Raw Materials and Preparation</li> <li>• Other Leatherwork Materials</li> <li>• Maintaining a Healthy Environment</li> </ul>	<p>2.1 Identify some leatherwork tools and state their functions e.g. cutting, piercing, hitting, decorating, polishing, etc. Demonstrate how to make some of the tools and ask students to produce samples for their personal use</p> <p>2.2 Assist students-teacher to discuss the differences among the major types of leather:</p> <ul style="list-style-type: none"> <li>• Cattle group – cow/bull hides – uses; shoe soles, heels, wellington boots and</li> </ul>

	3	Production of leather articles	<ul style="list-style-type: none"> <li>• Design Environment</li> <li>• Preliminary design</li> <li>• Design Process</li> <li>• Making Leather Items</li> </ul>	<p>shoe uppers, harnesses, travelling bags, garments, briefcases, etc. (from calves, from small breeds of cattle – shoe uppers, boots, hand bags, fancy leather goods, etc. Calf skins – boots, shoe uppers bookbinding, rawhide and parchments, etc. ii.</p> <ul style="list-style-type: none"> <li>• Sheep and Lamb group – woollen skins, aired skins (cabrettas), etc – shoe linings, gloves, aprons, chamois, piano action, etc.</li> <li>• Goat and Kid group – shoes, gloves and garments, aviator’s clothing, bookbinding, etc.</li> </ul>
	4	Leather decoration and finishing	<p>Leather Decoration:</p> <ul style="list-style-type: none"> <li>• Tooling: outline and flat</li> <li>• Dyeing (dyes/ink, local dyes)</li> <li>• Marbling – Tie and Dye</li> <li>• Dabbing</li> <li>• Printing</li> <li>• Carving</li> <li>• Embossing</li> <li>• Weaving etc.</li> </ul> <p>Leather Finishing:</p> <ul style="list-style-type: none"> <li>• Burnishing</li> <li>• Waxing etc.</li> </ul>	<p>2.3 Lead student-teacher to discuss the concept of personal hygiene, reasons for practicing personal hygiene and how to maintain personal hygiene</p> <p>3.1 Discuss with the student-teachers the importance of preliminary designing in the production of leather items.</p> <p>3.2 Lead student-teacher to discuss the design process using appropriate Student-teachers to identify a need and go through the design process to create a template or drafted pattern in class for discussion</p> <p>4.1 Student-teachers decorate leather items using one or more techniques</p> <p>4.2 Student-teachers assemble decorated leather items, identify and discuss each</p>

				<p>decorative technique used.</p> <p>4.2 discuss different leather decoction techniques used</p> <p>Discuss leather finishing techniques used in making leather items</p>
<p>Course Assessment Components (Educative assessment of, for and as Learning)</p>	<p>Assessment component I (formative): Assess learning Outcomes: CLO units 1-2</p> <p>Weighting: Assignment 10% Presentation 10% Project 10% Quizzes 10%</p> <p>Assessment component II (summative): Assess learning Outcomes: CLO units 1-4</p> <p>Weighting: Examination 60%</p>			
<p>Instructional Resource</p>	<p>Projectors, computers, leatherwork tools, leatherwork textbooks etc.</p>			
<p>Required Text (core)</p>	<p>Griswold, L. (2010). <i>Leatherwork</i>. North Caroline, USA: Lulu Press</p> <p>Taylor. C. (2015). <i>Leatherwork, A practical guide</i>. Ramsbery, Kariborough: The Crowood Press. Ltd.</p> <p>Mickel, A (2018). <i>Leather Work</i>. UK: Chizine Publication.</p>			
<p>Additional Readings</p>	<p>Adu-Akwaboa, S. (1989). <i>Art for schools and colleges</i> Kumasi: Samarg Publications.</p> <p>Amenuke, S.K, Adipah, B.K, Baffoe, A., Asare, F.D.K, Ayiku R., &amp; Dogbe B.K. (1991). <i>General knowledge in art for senior secondary schools</i>. London:Evans Brothers.</p> <p>Amenuke, S.K. (1997). <i>Notes on art education and vocational Skills</i>. Kumasi, KNUST: Design Press.</p> <p>Beloeil, G., &amp; Riabovitchev, A., (2013). <i>Art fundamentals: Color, Light, composition, anatomy, perspective and</i></p>			

	<p><i>depth</i>. Worcester, UK: 3 Dtotal Publishing.</p> <p>Bert, D. (1990). <i>Keys to drawing</i>. London: Nortlight Books.</p> <p>Brommer, G. F. (2011). <i>Elements of art and principles of design</i>. USA: Crystal Production, Illinois.</p> <p>Chapman, L. H (1978). <i>Approaches to art in education</i>. New York: Harcourt Brace Jovanovic Inc.</p> <p>Curriculum Research and Development Division of Ghana Education Service (2010). <i>Teaching syllabus for primary 1 - 6 (Creative arts)</i>. Accra, Ghana: Ministry of Education.</p> <p>Kimon, N. (1990). <i>The natural way to draw</i>. Wilmington, USA: Mariner Books.</p> <p>Kuofi, S. (2008). <i>Genral knowledge in art for senior high schools</i>. Kumasi: Approachers Series.</p> <p>Rockman, D. (2008). <i>Drawing essentials</i>. London : Oxford University Press.</p> <p>Stintson, R.E., Wigg, P.R., Bone,R.O., Cayton, D.L. &amp; Ocvirk, O.G. (1997). <i>Art fundamentals-theory and practice</i>. New York, Mcgraw – Hill College.</p>
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## DATABASES

### CONTEXT

The emergence of the information age has brought to the fore, the important role that information, knowledge and technology can play in facilitating socio-economic development. The effective use of information and knowledge is becoming the most critical factor for rapid economic growth and wealth creation, and for improving socio-economic well-being. Information and Communication Technology (ICT) should be integrated within all the learning activities of the school across all subjects. Targets for students' use of ICT relate to the usage of various ICT tools, broader issues associated with assessing information using these tools, and other management skills. As ICT is an important element in most subjects, ICT-related skills are assessed through traditional school subjects. The use of ICT in education can play a crucial role in providing new and innovative forms of support to teachers, students, and the learning process more broadly. With globalization, the information revolution, and increasing demands for a highly skilled workforce, nations are increasingly prioritizing education. The potential and promise of ICT use in education is clear: when implemented correctly, software in the classroom, for example, can allow students to learn at their own pace and tablets can help children develop important digital skills and computer know-how that they'll need to succeed in our knowledge-based economy. The programme has been designed to incorporate Digital Competence, which cover basic education. The programme's priority areas have been related to ICT infrastructure, competence development, research and development, digital teaching resources, curricula and working methods.

Course Title	<b>Databases</b>						
Course Code	<b>EBS 285</b>	Course Level	200	Credit value	2	Semester	1
Pre-requisite							
Course Delivery Modes	Face-to-face <input checked="" type="checkbox"/>	Practical Activity <input checked="" type="checkbox"/>	Work-Based Learning <input checked="" type="checkbox"/>	Seminars <input type="checkbox"/>	Independent Study <input type="checkbox"/>	e-learning opportunities <input checked="" type="checkbox"/>	Practicum <input type="checkbox"/>

<p>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</p>	<p>This course focuses on database and database management systems. It covers a traditional file system and the problems associated to it. It also examines the different types of database organization, the operations used as well as data warehouse, data marts and data mining technologies. Information, characteristics of useful information, role and impact of information system. Others include categories of Information System (TPS, MIS, DSS etc.), and System Development and Organizational Change and approaches to system development. Practical work on MS Access. The approaches that would be used in the delivery of this course would prepare trainees to be mindful of gender roles and also address issues relating to equity and inclusivity, by ensuring the learning progress of all children. (NTECF; NTS 2b, 2c, 3a, 3c, 3e-3j, 3p) and Cross-Cutting</p>	
<p>Course Learning Outcomes: including INDICATORS for Each learning outcome</p>	<p>Outcomes</p>	<p>Indicators</p>
	<p>5. Understand the database management systems and the information needs of a database. NTECF; NTS 2b, 2c, 3a, 3c, 3e-3j, 3p</p>	<p>4. Explain the concept of database management system (DBMS) and its operations. 5. Compare DBMS to the traditional file system. 6. Define the basic database terminologies like primary key, entity, relationships and foreign keys.</p>
	<p>6. Demonstrate an understanding of Entity Relational model and its applications to organizational data. NTECF; NTS 2b, 2c, 3a, 3c, 3e-3j, 3p</p>	<p>3. Analyze the data and data organization needs of organizations; 4. Apply the Entity-Relationship (E-R) Model for building information systems' data models;</p>
	<p>7. Demonstrate knowledge and understanding of relational models. NTECF; NTS 2b, 2c, 3a, 3c, 3e-3j, 3p</p>	<p>3. Transform an E-R diagram into a relational model, and use normalization to create a database relational schema; 4. Discuss the physical database design process of producing an efficient and tuned database;</p>
<p>8. Design a working database using either SQL or Access NTECF; NTS 2b, 2c, 3a, 3c, 3e-3j, 3p</p>	<p>3. Use SQL for database creation, manipulation, and control; 4. Explain the client/server model, and describe the key components used to implement internet database environments;</p>	



Course Content	Units	Topics	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	Unit 1	Introduction to Database Systems	4. Evolution of file processing systems. 5. Role of databases in organizations. 6. Components of a database environment.	<ul style="list-style-type: none"> <li>• Use of presentation to explain database terminologies.</li> <li>• Class discussion on the role of databases in organizations.</li> <li>• Group Writing Activities on different types of database systems. Encourage females to lead groups to deal gender stereotypes.</li> </ul>
	Unit 2	Data Modelling: The Entity-Relationship Diagram	2. Entity-relationship (E-R) diagram	<ul style="list-style-type: none"> <li>• Discussion of entity relational diagram.</li> <li>• Group students to design ER diagram on card board.</li> <li>• Group students to design ER diagram using a computer software like MS Visio. Encourage females to lead groups to deal gender stereotypes.</li> </ul>
	Unit 3	The Relational Model and Normalization:	3. Relational model 4. Normalization	<ul style="list-style-type: none"> <li>• Use group presentations to explain relational model and its importance.</li> <li>• Group students to convert their ER diagrams in unit 2 into relational models. Encourage females to lead groups to deal gender stereotypes.</li> <li>• Use discussion method to explain normalization.</li> </ul>
	Unit 4	Physical Database Design:		<ul style="list-style-type: none"> <li>• Use problem based learning to explain physical data base.</li> <li>• Design a real life database model.</li> </ul>
	Unit 5	SQL - A Standard Navigation Language for Relational Databases		<ul style="list-style-type: none"> <li>• Whole class activity in a form of problem based learning.</li> <li>• Use SQL to implement the database model in unit 4.</li> </ul>

	Unit 6	Data Quality and Database Administration	<ul style="list-style-type: none"> <li>• Use discussion method to explain data quality in databases.</li> <li>• Brainstorm the duties of database administrator.</li> </ul>
Course Assessment Components: (Educative assessment of, for and as learning)	<p><b>Component 1: Formative assessment</b> (Weighting=40%):</p> <ul style="list-style-type: none"> <li>▪ Quizzes, and individual assignments= 20%</li> <li>▪ Group assignments and seminar presentations= 20%</li> </ul> <p><b>Core skills to be developed:</b> Interpersonal and presentation skills, intellectual skills, research and organisation and creative skills Assessing learning outcomes: CLO 1-3</p> <p><b>Component 2: Summative assessment:</b> End of semester examination (Weighting-60%):</p> <ul style="list-style-type: none"> <li>▪ Part A: Practical Examination =30</li> <li>▪ Part B: Theoretical Examination=30%</li> </ul> <p>Total marks=100%</p> <p><b>Core skills to be developed:</b> Interpersonal and presentation skills, intellectual skills, research and organisation and creative skills Assessing learning outcomes: CLO 1-4</p>		
Instructional Resources	Computer assisted instruction, MS-PowerPoint slides, YouTube videos, Computer with MS-Access		
Required Text (core)	Date, C. J. (2003). <i>An introduction to database systems</i> . (8 <sup>th</sup> ed.). Reading MA: Addison Wesley Using Information Technology by Williams, Sawyer and Hutchinson Computer Science by C. S. French.		
Additional Reading List	Laudon, K. C. & Laudon, J.P. (2002). <i>Management Information Systems: Managing the digital firm</i> . (7 <sup>th</sup> ed.). Upper Saddle River, New Jersey: Prentice-Hall International, Inc.		

### ICT SUPPORTED TEACHING AND LEARNING STRATEGIES

Course Title	<b>ICT supported teaching and learning strategies</b>						
Course Code	EBS 281	Course Level	200	Credit value	2	Semester	1
Pre-requisite							
Course Delivery Modes	Face-to-face <input checked="" type="checkbox"/>	Practical Activity <input checked="" type="checkbox"/>	Work-Based Learning <input type="checkbox"/>	Seminars <input type="checkbox"/>	Independent Study <input type="checkbox"/>	e-learning opportunities <input checked="" type="checkbox"/>	Practicum <input type="checkbox"/>
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	The purpose of this course is the need for students to understand the concept, nature and importance of ICT education. This will prepare students to become ICT skilled teachers and to get familiar with ICT supported teaching strategies. It will also involve preparing the students in selection of appropriate ICT facilities as well as getting acquainted with innovative trends in ICT education. It is also important for students to be aware of the challenges and barriers to the integration of ICT in Ghanaian senior high schools. (NTS 2b, 2c, 3a, 3c, 3e-3m, 3p; NTECF Pillar 1)						
Course Learning Outcomes: including INDICATORS for Each learning outcome	Outcomes			Indicators			
	Describe the nature of ICT and its implications for teaching and learning. NTS 2c, 2e p. 13, 3h, 3j, p. 14.			explain the pedagogical implications to the teaching and learning process explain why we teach ICT in basic schools			
	Describe the roles of the teacher in the teaching and learning process NTS 2a, 2b, 2c, 2e. 2f; 3e-3o			Explain the roles of the teacher in the teaching and learning process			

	Describe innovative trends in ICT education NTS 2b, 2c, 3a, 3c, 3e-3m, 3p; NTECF Pillar 1		List innovative trends in ICT education	
Course Content	Units	Topics	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	1	Understanding ICT for teaching and learning	1.Theories of learning and ICT 2. What the research has to say: The impact of technology on teaching and learning 3. Literacy and new literacies 4. ICT and pedagogy	<ul style="list-style-type: none"> <li>Lecture on the theories of teaching and learning and ICT</li> </ul>
	2	Using ICT in the classroom	1. ICT tools for teaching and learning 2. Special needs and e-inclusion 3. Virtual worlds, online games and opportunities for learning 4. E-assessment and personalising learning 5. Mobile learning	<ul style="list-style-type: none"> <li>Brainstorm with students the various ways by which ICT can be used in the classroom</li> </ul>
	3	ICT for professional support and development	1. Teaching and learning with ICT: Overcoming the challenges of being a 21st century teacher 2. ICT tools for administration and monitoring pupil progress 3. ICT tools for professional development	<ul style="list-style-type: none"> <li>Discuss with students the various means of how ICT can support teaching professional in the performance of his/her various duties</li> </ul>

Course Assessment Components: (Educative assessment of, for and as learning)	<p>A combination of formative and summative assessment including group tasks, quizzes, individual and take home assignment and examination will be used.</p> <p><b>Assessment weighting</b></p> <table> <tr> <td>Summative Assessment</td> <td>60%</td> </tr> <tr> <td>Formative Assessment</td> <td>40%</td> </tr> </table> <p>Students will be graded as follows:  <b>A</b>=80-100%; <b>B+</b>=75-79%; <b>B</b> =70-74%, <b>C+</b> =65-69%, <b>C</b>= 60-64%, <b>D+</b>=55-59, <b>D</b>=50-54, <b>E</b>&lt; 50 (Fail)</p>	Summative Assessment	60%	Formative Assessment	40%
Summative Assessment	60%				
Formative Assessment	40%				
Instructional Resources	Lectures and discussions, Class discussion, lecture, pair/group presentations, demonstrations				
Required Text (core)	<p>Bates, A. W., Bates, T., &amp; Sangra, A. (2011). <i>Managing technology in higher education: Strategies for transforming teaching and learning</i>. John Wiley &amp; Sons.</p> <p>Ramirez, A. (2013). <i>Financing schools and educational programs: Policy, practice and politics</i>. Plymouth. Rowman and Littlefield Education.</p>				
Additional Reading List	<p>Cooper, B. S., Fusarelli, L. D. &amp; Randall, E. V. (2004). <i>Better policies, better schools; theories and applications</i>. Boston: Pearson</p> <p>Leask, M., &amp; Pachler, N. (2013). <i>Learning to Teach Using ICT in the Secondary School: A companion to school experience</i>. Routledge.</p>				

## CURRICULUM STUDIES IN ICT

The emergence of the information age has brought to the fore, the important role that information, knowledge and technology can play in facilitating socio-economic development. The effective use of information and knowledge is becoming the most critical factor for rapid economic growth and wealth creation, and for improving socio-economic well-being. Information and Communication Technology (ICT) should be integrated within all the learning activities of the school across all subjects. Targets for students' use of ICT relate to the usage of various ICT tools, broader issues associated with assessing information using these tools, and other management skills. As ICT is an important element in most subjects, ICT-related skills are assessed through traditional school subjects. The use of ICT in education can play a crucial role in providing new and innovative forms of support to teachers, students, and the learning process more broadly. With globalization, the information revolution, and increasing demands for a highly skilled workforce, nations are increasingly prioritizing education. The potential and promise of ICT use in education is clear: when implemented correctly, software in the classroom, for example, can allow students to learn at their own pace and tablets can help children develop important digital skills and computer know-how that they'll need to succeed in our knowledge-based economy. The programme has been designed to incorporate Digital Competence, which cover basic education. The programme's priority areas have been related to ICT infrastructure, competence development, research and development, digital teaching resources, curricula and working methods.

Course Title	<b>Curriculum Studies in ICT</b>						
Course Code	<b>EBS 242</b>	Course Level	200	Credit value	3	Semester	1
Pre-requisite							
Course Delivery Modes	Face-to-face <input checked="" type="checkbox"/>	Practical Activity <input type="checkbox"/>	Work-Based Learning <input type="checkbox"/>	Seminars <input checked="" type="checkbox"/>	Independent Study <input type="checkbox"/>	e-learning opportunities <input type="checkbox"/>	Practicum <input type="checkbox"/>
Course Description for significant learning (indicate NTS, NTECF, BSC)	This course is designed to equip the prospective ICT teachers with in-depth understanding of the nature and the content of the Junior High School ICT curriculum. The course will expose students to the concept of urriculum, issues relating to curriculum development in ICT, the nature and the content of the Ghanaian JHS ICT curriculum and how to effectively implement and evaluate the curriculum. The approaches that would be used in the delivery of this course						

GLE to be addressed)	would prepare trainees to ensure the learning progress of all students by projecting gender roles and issues relating to equity and inclusivity. NTECF, (NTS 2b, 2c, 3a, 3c, 3e-3m, 3j)	
Course Learning Outcomes: including INDICATORS for Each learning outcome	Outcomes	Indicators
	1. Definition of the term curriculum <b>NTS 2b, 2c, 3a, 3c, 3e-3m, 3j</b>	1. Define and explain the term curriculum
	2. Discuss the elements of curriculum design <b>NTS 2c, 3i, &amp; 3k</b>	2. Explain the nature of the curriculum process used in ICT
	3. Differentiate between the types of curricula <b>NTS 2c, 3i, &amp; 3k</b>	3. Discuss the varieties of content involved in ICT learning and the topics in the syllabus that reflect these varieties content.
	4. Explain the various determinants that influence the development of curriculum in ICT in Ghana <b>NTS 2b, 2c, 3a, 3c, 3e-3m, 3j</b>	4. Explain the factors to consider in structuring content and activities for teaching in ICT
	5. Models of curriculum development <b>NTS 2c, 3i, &amp; 3k</b>	5. Explain the various models of curriculum development
	6. Explain ICT curriculum implementation and evaluation <b>NTS 2c, 3d</b>	6. Explain the factors to consider in structuring content and activities for teaching in ICT and explain the theoretical explanations behind teachers' choices of activities in ICT teaching

Course Content	Units	Topics	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	1	Curriculum	1.1 Concept of curriculum in ICT 1.2 Types of curricula	- Use discussion method to explain and describe the four perspectives of curriculum in ICT stating the major elements - Use group discussion to explain the various types of curricula and state their implications in teaching ICT. Encourage females to lead groups to deal gender stereotypes.
	2	Determinants of curriculum		Use group discussion to explain factors that influence curriculum development. Encourage females to lead groups to deal gender stereotypes.
	3	Curriculum development process	Models of curriculum development	Brainstorm student to explain the various models of curriculum development with schematic diagrams
	4	Curriculum implementation		- Use group project to discuss curriculum implementation and factors influencing curriculum implementation. Encourage females to lead groups to deal gender stereotypes. - Group project on challenges in curriculum implementation. Encourage females to lead groups to deal gender stereotypes.
	5	Curriculum evaluation		- Discuss the purposes of curriculum evaluation - Group project to examine the ICT teaching syllabus for aims and objectives, mode of assessment and activities, paying attention to gender related issues



<p>Course Assessment Components: (Educative assessment of, for and as learning)</p>	<p><b>Component 1: Formative assessment</b> (Weighting=40%):</p> <ul style="list-style-type: none"> <li>▪ Quizzes, and individual assignments= 20%</li> <li>▪ Group assignments and seminar presentations= 20%</li> </ul> <p><b>Core skills to be developed:</b> Interpersonal and presentation skills, intellectual skills, research and organisation and creative skills</p> <p>Assessing learning outcomes: CLO 1-4</p> <p><b>Component 2: Summative assessment:</b> End of semester examination (Weighting-60%):</p> <ul style="list-style-type: none"> <li>▪ Part A: Practical Examination =30</li> <li>▪ Part B: Theoretical Examination=30%</li> </ul> <p>Total marks=100%</p> <p><b>Core skills to be developed:</b> Interpersonal and presentation skills, intellectual skills, research and organisation and creative skills</p> <p>Assessing learning outcomes: CLO 1-6</p>
<p>Instructional Resources</p>	<p>Computer assisted instruction, MS-PowerPoint slides, YouTube videos, Activity aids</p>
<p>Required Text (core)</p>	<p>Kearsley, G. (1997). Explorations in Learning &amp; Instruction: The Theory into Practice Database. Available: <a href="http://www.gwu.edu/~tip/">http://www.gwu.edu/~tip/</a></p> <p>Alessi, S. M. &amp; Trollip, S. R. (2001). Multimedia for learning. (3<sup>rd</sup> Ed.) Allyn and Bacon.</p> <p>Bruce, J. &amp; Marsha, W (1996) Models of teaching, 5<sup>th</sup> Ed., Allyn and Bacon. Behaviourist and constructivist learning theory. (s.a.)</p> <p><a href="http://www.coe.uh.edu/~srmehall/theory/theory.html">http://www.coe.uh.edu/~srmehall/theory/theory.html</a></p> <p>Bennett, F. (1999). Education and the future. Educational Technology &amp; Society 2(1)</p> <p><a href="http://ifets.massey.ac.nz/periodical/vol_1_99/fbennett_short_article.html">http://ifets.massey.ac.nz/periodical/vol_1_99/fbennett_short_article.html</a></p> <p>Bennett, F. (1999). Computers as tutors: Solving the crisis in education. Faben</p> <p><a href="http://www.concentric.net/~Faben1/">http://www.concentric.net/~Faben1/</a></p> <p>Boundorides, M. A. (2011). Constructivism and Education. A shopper's guide</p> <p><a href="http://www.duth.gr/~mboudour/">http://www.duth.gr/~mboudour/</a></p> <p>Morrison, G., Ross, S. M. &amp; Kemp, J.E (2004) Designing effective instruction. 4<sup>th</sup> Ed. John Wiley &amp; Sons Inc.</p>

Additional Reading List	<p>Jonassen, D. &amp; Mayes, J. T. (1993). A Manifesto for a Constructivist Approach to Technology in Higher Education. Available online: <a href="http://www.icbl.hw.ac.uk/ctl/msc/ceejw1/paper11.html">http://www.icbl.hw.ac.uk/ctl/msc/ceejw1/paper11.html</a></p> <p>Johnson, D. W. Johnson, R. T. &amp; Stanne, M. B. (2000). Cooperative learning Methods: A Meta-Analysis. <a href="http://www.clcrc.com/pages/cl-methods.html">http://www.clcrc.com/pages/cl-methods.html</a></p>
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## TEXTILE FIBRES AND FABRICS

<b>Course title</b>	<b>Textile Fibres and Fabrics</b>						
<b>Course Code</b>	<b>EBS 214</b>	<b>Course Level:</b>	<b>200</b>	<b>Credit Value:</b>	<b>3</b>	<b>Semester</b>	<b>1</b>
<b>Pre-requisite</b>	Introduction to clothing and textiles, Clothing Construction, Textile fibres and fabrics						
<b>Course Delivering Mode</b>	Face-to-face ■	Practical Activity ■	Work-Base Learning	Seminars ■	Independent Study ■	e-learning opportunities ■	Practicum ■
<b>Course Description for significant learning (indicate NTS, NTECF, BSC, GLE to be addressed)</b>	<p><b>COURSE DESCRIPTION</b></p> <p>This course examines the origin, structure, composition, properties (Physical and Chemical), and processing as they relate to fibres. Specifically the course would help students identify the various fibres in use and relate the properties to their selection, use and care. It also examines the process of fibre construction into fabric and the finishes given to fabrics and their effect(s) on use and care. Students will be exposed to fibre characteristics in a laboratory setting to help them identify various fibres in everyday use.</p> <p>(NTECF, NTS 2b, 2c)</p>						
<b>Course Learning Outcome: including INDICATORS for each learning outcome</b>	<p>Outcomes: Student will be able to:</p> <p>CLO 1. demonstrate knowledge and understanding of sources of textile fibres (NTS 2b, 2c)</p> <p>CLO 2. Demonstrate knowledge and understanding of how to use tests to identify textile fibres. (NTS 2b, 2c)</p> <p>CLO 3. Demonstrate knowledge on the behaviour of textile fibres. (NTS 2b, 2c)</p> <p>CLO 4. Demonstrate knowledge on how to select textile fabrics to suit the purpose. (NTS 2b, 2c)</p> <p>CLO 5. Demonstrate knowledge on the behaviour of various finishes used in textile production. (NTS 2b, 2c)</p> <p>CLO 6. Demonstrate knowledge on how to care for textile fabrics appropriately. (NTS 2b, 2c)</p>				<p>Indicators</p> <ol style="list-style-type: none"> <li>1. group textile fibres according to source and generic.</li> <li>2. use physical and chemical tests to identify textile fibres.</li> <li>3 show understanding of the behaviour of textile fibres.</li> <li>4. choose textile fabrics to suit the purpose.</li> <li>5. evaluate various finishes used in textile production.</li> <li>6. care for textile fabrics appropriately.</li> </ol>		

	CLO 7. Demonstrate knowledge on how textile processing affects the environment. (NTS 2b, 2c) (NTECF, NTS 2b, 2c)			7. assess the environmental issues in textile processing
	<b>Unit:</b>	<b>Topics:</b>	<b>Sub-topics:</b>	<b>Teaching and learning activities to achieve learning outcomes</b>
	1	Introduction to textiles	- Brief history of textiles use by man.	Through discussion lead student teachers to identify the come up with the origins of textile fabrics in Ghana specifically and around the world.
	2	Fibre polymer.	- Polymerisation in fibres - Textile fibre properties; Primary and Secondary	Through discussion lead student teachers to identify polymers and how they relate to textile fibres
	3	Classification of fibres	Natural Man-made	Through discussion, lead student teachers to explain the two main sources of fibre. Group students to give examples of each group of fibres
	4	Structure, Composition, Properties and Uses of natural fibres	Natural cellulosic: - Cotton, Linen Natural protein: - Wool, silk Natural mineral: - asbestos, glass	Make a power point presentation. Discuss and explain the structure, composition, p-roperrties and uses of natural fibres
	5	Structure, Composition, Properties and Uses of man-made fibres	Synthetic Regenerated Mineral fibres Metallic and others	Make a power point presentation. Discuss and explain structure, composition, properties and uses of manmade fibres
	6	Identification of	Touch	Through experimentation guide student

		textile fibres	Burning Microscopic Solubility Absorbency	teachers to identify various fibres.									
	7	Fabric manufacture	Yarn properties and construction. Fabric construction. Fabric finishes General and functional finishes	Through discussion lead student explain how fabrics are made starting from fibres through to a finished fabric.									
	8	Performance of textile fabrics	Textile testing Colour fastness to crocking Colourfastness to sunlight Dimensional stability – shrinkage and stretching Wrinkle resistance	Through discussion lead student explain fabric performance and how various performance qualities can be measured.									
	9	Environmental issues in textile processing		Through discussion lead student explain from fibres to finishing, how fabric processing affects the environment.									
<b>Course Assessment Components (Educative assessment of, for and as Learning)</b>	<p><b>Formative assessment (Individual and group tasks)</b></p> <table> <tr> <td>Exercise</td> <td>(individual)</td> <td>20%</td> </tr> <tr> <td>Quiz</td> <td>(individual)</td> <td>10%</td> </tr> <tr> <td>Group Project</td> <td></td> <td>10%</td> </tr> </table> <p><b>Weighting: 40%</b> CLO 1-5</p> <p><b>Summative assessment: End of semester examination</b> <b>Weighting: 60%</b> CLO 1-9</p> <p>Students will be graded as follows:</p>				Exercise	(individual)	20%	Quiz	(individual)	10%	Group Project		10%
Exercise	(individual)	20%											
Quiz	(individual)	10%											
Group Project		10%											

	A=80-100%; B+=75-79%; B =70-74%, C+ =65-69%, C= 60-64%, D+=55-59, D=50-54, E< 50 (Fail)
<b>Instructional Resource</b>	Textbook, Chart, Pictures, Projectors and Computers, Audio-visuals and animations from YouTube
<b>Required References</b>	<p>Collier, M (1970) <i>A Handbook of Textiles</i>. New York, Pergaman Press.</p> <p>Vanderhoof, M., Larina, F., &amp; Lucille, C. (1985). <i>Textiles of Homes and People</i>. Massachusetts, Ginn and Company.</p> <p>Barbara B. &amp; Pomeroy J. (1985). <i>Fibre and Fabrics</i>. Nuffield Home Economics, Hutchinson &amp; Co. Publishers Ltd.</p> <p>Joseph, M. L. (1996). <i>Introductory textile science</i>, New York: Holt, Rinehart and Winston Inc.</p> <p>Porter, M. D. &amp; Corbman, B. B. (1967). <i>Textiles: Fibre to fabric</i> (4<sup>th</sup> ed). USA: McGraw-Hill.</p>

## MEAL MANAGEMENT

### CONTEXT

This programme has both theory and practice which will help build on the knowledge and practical skills of students-teachers acquired at the Junior High level. The programme is to help them acquire more new skills in hands-on learning and prepare them to teach at the Junior High level confidently. As they undertake the practicum lessons on individual basis and as groups, they will share individual and transferable skill that will enhance their performance as teachers.

Course title	Meal Management						
Course Code	EBS 225	Course Level	200	Credit Value	3	Semester	1
Pre-requisite	No prerequisite required						
Course Delivery Modes	Face -to -face [√]	Practical Activity [√]	Work-Based Learning [√]	Seminars	Independent Study	e-learning opportunities [√]	Practicum [√]
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	This course will introduce students to the basic principles of nutrition, wellness, and preparation of food. Healthy food and healthy lifestyle choices will be discussed. The goal is to enhance student awareness to personal food choices and physical activity. Students' knowledge of food choices will motivate them to improve their choices of food for better health. NTCEF, NTS 2c, p 13, 3e, 3f, 3g p14						
Course Learning Outcomes	<b>Course Learning Outcomes</b> By the end of the course, students should be able to; <ol style="list-style-type: none"> <li>1. describe food terminology, proper measuring including sanitation and hygiene NTCEF, NTS 2c, p.13,</li> <li>2. demonstrate basic techniques in food preparation especially in the kitchen. NTS 2c, p 13, 3e, 3f, 3g p14</li> </ol>				<b>Indicators</b> Dietary status Satisfaction with <i>meal</i> service. Quality hazards Accurate forecasting system Improved standardized recipes,		

		<p>3. describe sanitation and hygiene associated with food preparation NTS 2c, p.13</p> <p>4. explain the benefits of eating a variety of foods from each recommended food group NTCEF, NTS 2c, p 13, 3g p14</p> <p>5. identify factors that affect weight management NTCEF, NTS 2c, p 13, 3f, 3g p14</p>		
Course Content	Units	Topics:	Sub-topics	Teaching and learning activities to achieve learning outcomes
	One	Meal planning	Guide to planning nutritious meals, Procedure in menu Pattern in Menu planning	Teacher will teach students to plan menus, economically purchase food, prepare and serve meals.
	Two	Table appointments and Table setting	planning, the food budgets Using resources effectively. Rules on menu format. Types of dinnerware	Students will apply portion sizes to healthy meal planning Students will learn and undertake Diet analysis to assess personal food intake
	Three	Good eating habits and handling table equipment.	Table etiquette and good table conduct. The standardized recipe.	
	Four	Food preparation and cooking methods	Main dishes Vegetables dishes Preparation of some main dishes and Methods of cooking	



			Dry heat methods Moist heat methods Other methods	
Course Assessment	<p><b>Formative Evaluation:</b> Practicum, Test  <b>Weight: 40 to cover units One to Three</b>  <b>Summative Evaluation : Practicum</b> students independent reports  <b>Weight : 60, to cover all the four units</b>  NTS, 3k, p14</p>			
Instructional Resources	Catering outlets on campus and community, a well-equipped foods and nutrition laboratory, internet (Youtube)			
Required Text (core)	MacArthur, R.L; & Kwakye, F (2014). Food and nutrition for schools and colleges. Accra: Adwinsa Publications			
Additional Reading List	<p>Darkwa, S., MacArthur, R.L. &amp; Tawiah, T. (2012). Meal planning and food services. Accra: Adwinsa Publication</p> <p>- Kwakye, F. &amp; Adjei Frempong, A. (2013). Food and beverage production and service. Cape Coast: University Press</p> <p>- Whitney, Ellie; Rolfes, Sharon Rady (2013). <i>Understanding Nutrition</i> (13 ed.). Wadsworth, Cengage Learning. pp. 667, 670. ISBN 978-1133587521.</p> <p>- Mitchell, Dakota; Haroun, Lee (2012). <i>Introduction to Health Care</i> (3 ed.). Delmar Cengage. p. 279. ISBN 978-1-435-48755-0.</p> <p>- Allen V. Barker; David J. Pilbeam. <i>Handbook of Plant Nutrition</i>. CRC Press, 2010. p. Preface.</p>			
Instructional Resources	A well-equipped clothing and textiles laboratory, computer laboratory with appropriate software/brown paper and grey baft			
Required Text (core)	<p>Messiah, S. E., K. L. Arheart, B. Luke, S. E. Lipshultz, and T. L. Miller. 2008. Relationship between body mass index and metabolic syndrome risk factors among U.S. 8- to 14-year-olds, 1999 to 2002. <i>Journal of Pediatrics</i> 153 (2):215–221.</p> <p>Nader, P. R., R. H. Bradley, R. M. Houts, S. L. McRitchie, and M. O'Brien. 2008. Moderate-to-vigorous physical activity from ages 9 to 15 years. <i>Journal of the American Medical Association</i> 300(3):295–305.</p> <p>Sallis, J. F., and B. E. Saelens. 2000. Assessment of physical activity by self-report: Status, limitations, and future directions. <i>Research Quarterly for Exercise and Sport</i> 71(2 Suppl.):1–14.</p>			

	Higgs J and Styles K (2006). Principles and practical aspects of healthful school vending. <i>British Nutrition Foundation Nutrition Bulletin</i> , 31:225–232
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## CROP PRODUCTION

### CONTEXT

Ghana's agriculture is largely dominated by crop production. Crops grown include a wide variety of grains, legumes, vegetables (traditional and exotic), palms, fruits and plantation crops. The cultivation of these crops has become progressively challenging as a result of environmental degradation, climate change and impoverished soils. This problem is compounded by rapidly growing population that require more agricultural produce for food, especially in Africa and other developing countries.

Course Title	Crop Production						
Course Code	EBS 205	Course level:	200	Credit Value:	3	Semester	1
Prerequisite							
Course Delivery Modes	Face-to Face X	Practical Activity X	Independent Study X	Seminar X	Work-Based Learning	E-Learning	Practicum
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	<p>The course is intended to provide students with the understanding of the basic principles of crop production, paying specific attention to land selection and preparation, nursery practices, agronomic practices, pests and diseases management, and harvesting in the production of vegetables, ornamental field and plantation crops. This course will also expose students to development of business plan for crop production.</p> <p>The student must apply the knowledge and skills gained to produce one vegetable crop for field inspection and sale. The course will be facilitated through face-to-face interaction with students, practical demonstrations of technologies and best practices, students' independent study, Work-Based Learning, Practicum and E-Learning.</p> <p>NTECF; NTS 1 a-g, NTS 2 a-f, NTS 3 a-d</p>						
	Outcomes Upon successful completion of this course, the student will:			Indicators			
Course Learning Outcomes: including INDICATORS	<p>CLO1. importance of crops production <i>NTS 1 a-g, NTS 2 a-f, NTS 3 a-d</i></p> <p>CLO2. principles governing the production of vegetables, ornamental, field and</p>			<p>1.1 Outline the importance of crop production.</p> <p>2.1 Discuss the basic principles and practices of crop production (such as nursery practices, planting, cultural practices, harvesting, etc.)</p>			

for each Learning Outcome	plantation crops <i>NTS 1 a-g, NTS 2 a-f, NTS 3 a-d</i> CLO3. principles of pests and diseases management <i>NTS 1 a-g, NTS 2 a-f, NTS 3 a-d</i> CLO4. apply the principles of production and pests and disease management to produce one vegetable crop. <i>NTS 1 a-g, NTS 2 a-f, NTS 3 a-d</i>		3.1 Explain the principles of pests and diseases management in crop production 4.1 develop a business plan for crop production (vegetables, ornamental, and field crops).	
Course content	Units	Topics	Sub-topics (if any)	Teaching and learning activities to achieve learning outcomes
	1	importance of crops production		
	2	principles governing the production of vegetables, ornamental, field and plantation crops		Principles governing the production of vegetables, ornamental, field and plantation crops will be treated using lectures, group discussions, and practical activities on the farm.
	3	principles of pests and diseases management		principles of pests and diseases management will be treated using lectures, group discussions, and practical activities on the farm
	4	business planning for production of vegetable crop		Using PowerPoint illustrations and examples from the internet students acquire the skill of preparing business plan for vegetable crop production
Course Assessment (Educative assessment of, for, and as learning)	Formative: Assessment of students' skills and involvement in practical field activities through observation Weighting: 10% CLO 3-4 Assessment of students' vegetable projects for effectiveness of pest management, yield and quality. Weighting: 30% CLO3 Summative: Class tests using paper and pencil tests to assess students' level of knowledge and understanding of importance and basic principles of crops production CLO 1-2 Weighting: 20% End of Semester Examination covering CLO 1-4			

	Weighting: 40%
Instructional Resources	Computer (Lap-top) VCR Video projector Internet resource (Videos from YouTube)
Required Text (core)	Ennis, Jr. W. B (1979). <i>Introduction to crop protection</i> . American society of agronomy and crop science society of America. Medison, Wisconsin. USA. Gopalakrishnan, T. R. (2007). <i>Vegetable crops</i> . New Delhi: New India Publishing. Sinnadurai, S. (1973). <i>Vegetable production in Ghana</i> . Acta Hortic. 33, 25-28.DOI: 10.17660/ActaHortic.1973.33.3 Pratley J. E. (2003). <i>Principles of field crop production</i> . Oxford University Press. 550 pages Martin J. H. , Waldren R. P., & Stamp, D. L. (2006). <i>Principles of field crop production</i> . Pearson Prentice Hall, - Technology & Engineering - 954 pages Singh, S.S. (1988). <i>Principles &amp; practices of agronomy</i> . New Delhi:Kalyani Publishers Welbaum, G. E. (2015). <i>Vegetable production and practices</i> . Wallingforth, Oxfordshire, UK: CAB International

## VALUE CHAIN AGRICULTURE

Agriculture in the past has been practised mostly as subsistent agriculture or a hobby. As a result, farmers are most often pushed below the poverty line because they earn very little or no income from their work. This is why the young Ghanaian is not interested in working as an agricultural producer. The emerging farmers of the future have to move away from the old fashioned subsistence agriculture to value chain agriculture which is a commercial model. In this circumstance, the agriculture teacher is expected to have knowledge, skills and attitudes that will motivate him/her to facilitate in the youth the interest, creativity, innovativeness, and critical thinking abilities, through value chain agriculture to create and make use of opportunities for increased and quality agricultural production and varied employment for all categories of people.

Course Title	Value Chain Agriculture						
Course Code	EBS 220	Course level:	200	Credit Value:	3	Semester	1
Prerequisite							
Course Delivery Modes	Face-to Face	Practical Activity	Independent Study	Seminar	Work-Based Learning	E-Learning	Practicum
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	<p>This course introduces students to the concept of the value chain approach in agriculture. It helps students to understand the importance of the value chain approach which emphasizes the importance of the whole chain – from input supply, through production to marketing and consumption – every actor has a key role to play to ensure gender equity and success. Opportunities and challenges to the approach in the agricultural sector are treated. Skills in value chain mapping, selection and analysis will be emphasised.</p> <p>In addition, the course will equip students with knowledge and skills in value chain in fish farming. The various key actors in the fish value chain will also be discussed.</p> <p><i>NTS 1b1c, 1f, 1g, 2b, 2c, 3e, 3g, 3h. NTECF pp. 20-22, 32, 35-36</i></p>						
	Outcomes			Indicators			
	Upon successful completion of this course, the student will be able to:						
Course	1. Show knowledge and understanding of the			1.1 explain the concept of value chain as related to			

<p>Learning Outcomes: including INDICATORS for each Learning Outcome</p>	<p>value chain concept and the principles underlying the concept <i>NTS 1b,2b, 3f NTECF pp. 20-22 NTECF pp. 20-22</i></p> <p>2. Exhibit knowledge and understanding of the benefits of value chain implementation and its associated constraints <i>NTS 1b,2b NTECF pp.38-40</i></p> <p>Apply the knowledge and understanding of the value chain concept to the development and coordination of agricultural enterprises <i>NTECF pp32, 35-36</i></p> <p>3. describe the constraints and bottlenecks that hamper the implementation of the selected value chain</p> <p>4. identify the key actors in the agricultural value chain</p> <p><i>NTS 1c, 1f, 1g, 2c, NTECF pp20, 22, 32</i></p>			<p>agriculture and its benefits to agricultural entrepreneurs</p> <p>1.1 outline the principles underlying value chain agriculture</p> <p>2.1 Select an agricultural value chain and describe the characteristics of an agricultural value chain</p> <p>2.2 justify the criteria used in selecting the value chain (indicating the competitiveness potential, impact potential, cross-cutting issues and industry leadership)</p> <p>3.1 develop a value chain map for a selected agricultural value chain</p> <p>3.2 carry out a value chain analysis of the selected chain</p>
<p>Course content</p>	<p>Units</p>	<p>Topics</p>	<p>Sub-topics (if any)</p>	<p>Teaching and learning activities to achieve learning outcomes</p>
	<p>1</p>	<p>Concept of Value Chain;</p>	<p>1.1 Characteristics of value chain;</p>	<p>Teacher gives an exposition of what is a value chain and its characteristics.</p>
	<p>2</p>	<p>Principles of Value Chain</p>	<p>1.2 Benefits of value chain to Agricultural entrepreneurs and buyers of agricultural commodities.</p>	<p>Teacher uses lectures to explain and uses examples to clarify the concept, principles and practice of value chain agriculture</p>
	<p>3</p>	<p>Application of the value chain concept to agricultural enterprises development</p>	<p>3.1 Value Chain Selection. 3.2 Value Chain Mapping 3.3 Value Chain Analysis 3.4 Constraints that hamper value chain implementation</p>	<p>Students are given assignment to search for information on the benefits of value chain agriculture to agricultural entrepreneurs and their customers and discuss their findings in groups. Groups present their discussion</p>

			in agriculture	reports in class.
	4	Key actors in the Agricultural Value Chain	12.1 Input suppliers 12.2 Production 12.3 Processing 12.4 Marketing 12.5 Transport services	Using simulations as a teaching method, students and assisted to <ul style="list-style-type: none"> <li>i. Choose a value chain based on the value chain selection criteria.</li> <li>ii. Develop a value chain map for the hypothetical value chain selected</li> <li>iii. Conduct a value chain analysis for the hypothetical value chain selected</li> </ul>
	5	Value Chain in Aquaculture	5.1 Actors in the aquaculture value chain	<ul style="list-style-type: none"> <li>i. Group discussion to identify the various actors in the Agricultural Value Chain</li> <li>i. Choose a specific aquaculture enterprise and identify the various actors from input supply to consumption</li> </ul>
Course Assessment (Educative assessment of, for, and as learning)	Formative assessment Quizzes and written assignments CLO 1-3 Weighting: 20% Students prepare and present a value chain map of a selected commodity value chain CLO 3.5 Weighting: 10% Student carries out a value chain analysis for a selected crop and present the results to the class CLO 3.6 Weighting: 10% Summative Assessment			



	End of Semester Examinations covering CLO 1 – 4 Weighting: 60%
Instructional Resources	Computer (Lap-top) VCR Video projector Internet resource (Videos from YouTube)
Required Text (core)	Ruth, C. (2012). Strengthening value chains to promote economic opportunities. ACDI/VOCA Abbot, J. C. (1979). Agricultural economics and marketing in the tropics. London. Longman Group Ltd. Sprengel, R.A. (2012). <i>The food safety handbook (Level 2)</i> . London: Highfield.

## AGRICULTURAL ENTREPRENEURSHIP

### CONTEXT

Agriculture is the backbone of the economy of Ghana. Youth unemployment has become a national security issue in most African countries including Ghana. Youth and graduate unemployment is increasing because many students graduate from school and expect the government to employ them. However, agriculture is mostly engaged in by the aged and those with little or no formal education and knowledge in Agribusiness. The rationale of the course is to introduce students to agribusiness value chain and explore the various job and business opportunities open to students in agriculture. Even though many students may have the practical knowledge, they lack the courage and spirit to start their own businesses. The course is also designed to stir in students entrepreneurial spirits and motivate them to start their own agribusiness venture after graduation from school. The intent is to reduce youth/graduate unemployment in the country

Course Title	<b>Agricultural Entrepreneurship</b>						
Course Code	EBS 230	Course Level:	200	Credit Value	3	Semester	1
Course Delivery Modes	Face-to-face [X]	Practical Activity	Independent Study [X]	Seminar [X]	Work-based Learning [X]	E-Learning [X]	Practicum
Course Description for significant learning	This course will emphasize issues related to entrepreneurship such as the entrepreneurial environment, the development of an entrepreneurial plan, the initiation of entrepreneurial ventures, and the growth and development of entrepreneurial enterprises. Specific areas to be covered include characteristics of an entrepreneur; the entrepreneurial process (how to start a business; business idea generation and selection; market research; project cost estimation; sources of funds and assistance; preparation of business plans). The development of entrepreneurial skills will be cultivated throughout this course <i>NTS 1b1c, 1f, 1g, 2b, 2c, 3e, 3g, 3h, 3k, 3l. NTECF pp. 20-22, 32</i>						
Course Learning	<b>Outcomes</b>			<b>Indicators</b>			

Outcomes including indicators for each learning outcome	Upon successful completion of this course students should be able to:			
	1. Describe the concept, historical development and some misconception of entrepreneurship			1.1 Explain the concept of entrepreneurship 1.2 Describe the historical development of entrepreneurship
	2. Distinguish between creativity and innovation			2.1 Establish the difference between creativity and innovation
	3. Understand the Personal Entrepreneurial Competencies they need to develop to become a successful entrepreneur especially in agribusiness			3.1 Enumerate the key competencies required by a farmer to become a successful entrepreneur
	4. Describe the different type of business enterprises in Ghana and their advantages and disadvantages and know how to register a business			4.1 Describe the different type of agricultural business enterprises in Ghana. 4.2 Give advantages and disadvantages of the different agricultural business enterprises 4.3 Describe how to register an agricultural enterprise
	5. Develop a simple Business Plan for establishing their own business			5.1 Describe the development of Business Plan for establishing own agricultural enterprise
Course content	Units	Topics	Sub-topics (if any)	Teaching and learning activities to achieve learning outcomes
	1	The nature and concepts of entrepreneurship	1.1 The meaning of Entrepreneurship 1.2 Historical development of Entrepreneurship 1.3 School of thoughts on Entrepreneurship 1.4 Elements of Entrepreneurship Entrepreneurship versus Intrapreneurship	Teacher gives a lecture to introduce students to the nature and concepts of entrepreneurship  Teacher takes students to visit established agribusiness enterprises to interact with workers and management and observe various enterprises
	2	Personal entrepreneurial competencies	2.1 The Personal Entrepreneurial Competencies (PECs) 2.2 Some Myths or Misconceptions of Entrepreneurship 2.3 Undesirable Characteristics you need to avoid as Entrepreneurs	Teacher uses brainstorming to identify various Personal entrepreneurial competencies
	3	Creating and	3.1 Identify and evaluate the	Teacher gives a lecture to introduce students to the

	presenting business plan	opportunity 3.2 What is Business plan and Importance of Business Plan	Creating and presenting business plan Teachers guides students to develop own business plans for chosen agricultural enterprises
4	Feasibility and market assessment	4.1 Important of feasibility analysis? 4.2 Role of feasibility analysis in developing a successful business idea 4.3 Market Assessments and developing customer profile	Teacher gives a lecture to introduce students to the feasibility and market assessment
5	Major components of the business plan	5.1 Introductory Elements; Business Description; The Market; Operations/ Production; Sales & Marketing; Management Financials	Teacher gives a lecture to introduce students to the major components of the business plan
6	Basic types of business or forms of business organizations in Ghana	6.1 Sole proprietorship 6.2 Partnerships 6.3 Limited liability companies 6.4 Factors to consider when choosing a form of business organizations 6.5 Small and Medium scale enterprise (SMEs in Ghana): Types, opportunities and challenges	Teacher uses brainstorming to identify and describe various forms of agribusiness organisations in Ghana
7	Break even analysis: introduction and practical applications	7.1 What is Break Even analysis 7.2 Assumptions underlining the Break Even Analysis <b>7.3</b> Methods of calculating the Break-Even analysis 7.4 Uses of the Break-Even Analysis	Teacher gives a lecture to introduce students to break even analyses

	8	Essentials of finance for business and importance of insurance in business	8.1 Types of Finance for Agribusiness 8.2 Sources of Finance for Agribusiness 8.3 Insurance in Agribusiness	Teacher uses brainstorming to identify types and sources of finance for agribusiness  Teacher uses question and answer method identify the importance of insurance in agribusiness
	9	Business plan presentations	9.1 Presentation of business	Students present their own business plan developed, using PowerPoint Presentations  Teacher discusses with students the various business plans presented and make corrections where necessary
Course Assessment (Educative assessment of , for, and as learning)	<p>Formative:</p> <p>1. Students submit written report on field visit showing students observational skills and understanding of their field experiences Weighting: 10%</p> <p>2. Development of a lesson plan for teaching agricultural entrepreneurship Weighting: 10%</p> <p>3. Class tests to determine their knowledge and understanding of entrepreneurship Weighting: 20%</p> <p>Summative:</p> <p>End of Semester Examination to assess all Course Learning Outcomes Weighting: 60%</p>			
Instructional Resources	LCD projector and screen, Personal computers (PC), Internet connectivity, Sample business plans			
Required Text (Core)	<ol style="list-style-type: none"> <li>1. Hisrich, R.D &amp; Peters, M.P (2002): <i>Entrepreneurship: (5<sup>th</sup> Edition)</i> McGraw-Hill Higher /Irwin: New York:USA</li> <li>2. Kuratko D.F &amp; Hodgetts, R.M ( 1998): <i>Entrepreneurship: A contemporary Approach</i> (4th Edition). The Dryden Press, Harcourt Brace College Publishers.</li> <li>3. Megginson, W.L; Byrd, M.J; Scott Jrn C.R &amp; Megginson, L. (1992): <i>Small Business Management</i>. Irwin Mc.Graw-Hill.</li> <li>4. Shane, S A ( 2008) <i>The Illusions Of Entrepreneurship. The Costly Myths That Entrepreneurs, Investors, And Policy Makers Live By</i>. New Haven/London: Yale University press</li> <li>5. Skinner, J.R (2003): <i>Business Plan , Business Reality, Starting and Managing your own Business in Canada</i> (2nd Ed): Toronto, Canada</li> <li>6. <b>Bosompem, M., Dadzie, S. K., &amp; Tandoh, E. (2017).</b> Undergraduate Students' Willingness to Start Own Agribusiness Venture after Graduation: A Ghanaian Case. In Paul Jones, Gideon Maas , Luke Pittaway (ed.) <i>Entrepreneurship Education (Contemporary Issues in Entrepreneurship Research, Volume 7)</i> Emerald Publishing Limited, pp.75</li> </ol>			

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7. **Bosompem, M.**, Annor-Frempong, F., Achiaa, Y. (2013) Perceived Entrepreneurial Competencies of Undergraduates and Self-Employment Creation After Graduation: Implications for Youth Policy In Ghana. *International Journal Of Business And Management Studies*.2 (3): ISSN: 2158

## LANGUAGE STRUCTURE AND USAGE III (ORAL)

### CONTEXT

French is studied as a Foreign Language in the multilingual context in Ghana. In this space, coexist about 70 local languages out of which 10 are studied and assessed in the school system. This sociolinguistic environment tends to limit the opportunities for learners of French to acquire and use the language in various communicative situations. Since the environment of learning deprives learners of the possibilities to practise the language they are taught, the classroom becomes the ideal place for various kinds of interactions to thrive. Surrounded by French speaking countries, learners in Ghana need to develop a high level of competence in French to enable them sustain interactions with Francophones for various purposes. This therefore becomes imperative for teacher trainees in French to acquire the linguistic, sociocultural and pedagogical competences in the study of the language for them to be able to perform effectively in their profession as teachers of French. In order to achieve this goal, teacher trainees should be taken through various aspects of the French language such as the structure and use, translation, linguistics, literature and teaching methodologies/approaches.

Over the years, the oral aspect in the teaching and learning of French has been relegated to the background while more emphasis is placed on the written aspect and all its forms of assessment. This situation has contributed immensely to the inability of learners of French in Ghana to speak the language. To address this deficiency, the French language structure and usage is designed to build in teacher trainees the requisite oral and written skills for effective communication in the personal, educational, social and professional domains of life.

Course Title	Language Structure and Usage III (Oral)						
Course Code	EBS 211	Course level: 200		Course Value: 2		Semester 1	
Pre-requisite	EBS 139: Language Structure and Usage 2 (Oral)						
Course Delivery Modes	Face-to-Face <sub>1</sub> √	Practical Activity <sub>2</sub> √	Work-Based learning <sub>3</sub> √	Seminars <sub>4</sub>	Independent Study <sub>5</sub> √	e-learning opportunities <sub>6</sub> √	Practicum <sub>7</sub> √
Course	Apart from the description done for EBS 139 (Oral), this course further equips students with more conversational						

Description (Indicate NTS & NTECF to be addressed)	skills and strategies to be able to sustain a meaning interaction with francophones and other speakers of the French language. Emphasis is on the ability to express oneself and engage others in a discussion on various issues in given communicative situations in French. (NTECF; NTS 1a, b, d, p 12 ; 2c, f, p13 ; 3e, f, k, m, p14)	
Course Learning Outcomes	Outcomes At the end of the course, students are expected to:	Indicators
	1. demonstrate understanding of sentences based on frequently used vocabulary pertaining to areas of most immediate personal relevance (NTS 2cf, pg.13)	1.1 Demonstrate understanding of sentences based on frequently used vocabulary to talk about family, shopping, immediate environment, employment, among others. 1.2 Responding to information about family relations, acquaintances, shopping, immediate environment, employment and others.
	2. catch the main points in short, clear, simple messages and announcements. (NTS 2cf, pg.13)	1.1 Show evidence of understanding of main points in short, clear and simple messages and announcements. 1.2 Responding appropriately to information from short, clear and simple messages and announcements.
	3. identify specific information from very short and simple texts on simple everyday material such as advertisements, prospectuses, menus, timetables, personal letters, etc. (NTS 2cf, pg.13)	1.1 Responding appropriately to questions about specific information in simple and short texts. 1.2 Explaining adequately specific information in simple and short texts.
	4. communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar topics and activities. (NTS 2cf, pg.13)	1.1 Communicating in simple and routine tasks requiring a simple and direct exchange of information on familiar topics and activities such as at the market, hospital, hotel, bookshop, post office, tourist desk, reception desk, etc. 1.2 Responding appropriately to questions relating to basic



				personal and family information, shopping, geographical location, employment, etc.
	5. sustain very short social interactions to keep the conversation going. (NTS 2cf, pg.13)			5.1 Using appropriately compensatory techniques such as repetition, reformulation, circumlocution, pause, seeking words from interlocutors, etc. to sustain social interactions. 5.2 Using paralinguage such as gestures, facial expressions, tones of voice, eye contact, special arrangement, patterns of touch, expressive movement, silence, etc. to sustain social interactions.
Course Content	Units	Topics	Sub-topics (if any)	Suggested Teaching/Learning Strategies
	1.	Les achats 3	<ol style="list-style-type: none"> <li>1. Formules pour faire une requête (un choix)</li> <li>2. Exprimer les préférences sur les couleurs et vêtements, taille et pointure, etc.</li> <li>3. Exprimer son indécision</li> <li>4. Demander et donner des conseils</li> <li>5. Formules pour se plaindre/réclamer</li> </ol>	<ol style="list-style-type: none"> <li>1. Demonstrate to students various ways of making request for services using the conditional tenses and other indirect forms (questions).</li> <li>2. Discuss with students expressions to show likes and dislikes for services (personal effects).</li> <li>3. Discuss with students expressions to state one's inability to make decisions about services.</li> <li>4. Discuss with students expressions used to seek or give advice about services.</li> <li>5. Discuss with students expressions used to show dissatisfaction about services rendered.</li> <li>6. Discuss with students expressions used to demand restitution or compensation for unsatisfactory services.</li> <li>7. Watching and discussing video materials on ways of requesting services.</li> <li>8. Provide students with tasks on making requests for services.</li> </ol>

2.	Décrire quelqu'un	<ol style="list-style-type: none"> <li>1. Faire le portrait physique d'une personne.</li> <li>2. Faire le portrait moral d'une personne.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with students terms used in physical description of persons.</li> <li>2. Discuss with students terms used in describing character of persons.</li> <li>3. Ask students to describe high profile personalities, teachers, family relations, friends, etc.</li> </ol>
3.	Un itinéraire	<ol style="list-style-type: none"> <li>1. Demander un itinéraire</li> <li>2. Expliquer un itinéraire</li> <li>3. Proposer des moyens de transport</li> <li>4. Situer un lieu</li> <li>5. Remercier ou refuser</li> <li>6. Règles socioculturelles</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with students expressions to ask for directions in a polite way.</li> <li>2. Discuss with students expressions to show directions.</li> <li>3. Watching and discussing video materials on indicating directions.</li> <li>4. Discuss with students expressions to indicate locations using persons, maps, photos, sketches as illustrations.</li> <li>5. Discuss with students expressions used to indicate various means of transport.</li> <li>6. Brainstorm with students on various forms of showing gratitude.</li> <li>7. Involve students in tasks in which they indicate directions.</li> </ol>
4.	Activités quotidiennes 3	<ol style="list-style-type: none"> <li>1. Parler des activités quotidiennes</li> <li>2. Faire son emploi du temps</li> </ol>	<ol style="list-style-type: none"> <li>1. Assist students to describe their daily activities.</li> <li>2. Discuss with students based on models, various expressions for making plans of daily activities.</li> <li>3. Ask students, based on models, to make and present their plans on selected activities.</li> </ol>
5.	Description des lieux	<ol style="list-style-type: none"> <li>1. Décrire les lieux</li> <li>2. Demander et donner des informations sur une ville, un logement, etc.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with students terms used to describe places.</li> <li>2. Discuss with students expressions to ask and give information on towns, villages, houses, parks, and other places of interest.</li> <li>3. Ask students to describe places of interest such as</li> </ol>

				schools, hospitals, hotels, malls, markets, etc.
6.	Les loisirs	1. Parler de ses loisirs 2. Parler des activités du weekend		1. Discuss with students expressions to describe leisure. 2. Ask students to describe their leisure time during weekends, public holidays and long vacations.
7.	Au restaurant	1. Expressions relatives au restaurant (l'addition, digestif, caisse, menus, plat) 2. Formules de politesse (s'il vous plaît, pardon)		1. Discuss with students various expressions used in a restaurant. 2. Discuss with students expressions used in making polite requests in a restaurant. 3. Listening and discussing audio recordings on conversations at restaurants. 4. Watching and discussing video materials on scenes at restaurants. 5. Provide students with oral tasks to simulate scenes at restaurants.
8.	Invitations	1. Inviter quelqu'un 2. Accepter une invitation 3. Refuser une invitation		1. Discuss with students various expressions for giving invitations. 2. Discuss with students various expressions for accepting invitations. 3. Discuss with students various expressions for politely turning down invitations. 4. Listen and discuss with students audio recordings on invitations. 5. Watch and discuss with students video materials on invitations. 6. Provide students with oral tasks requiring accepting or turning down invitations.
9.	Accidents et Incidents	1. Raconter un événement passé 2. Commenter des incidents		1. Discuss with students expressions and tenses for giving an account of accidents, incidents and other past events. 2. Discuss with students expressions and tenses for

			<p>3. Se plaindre, imputer une responsabilité</p> <p>4. Constat d'accident</p>	<p>complaining and blaming others.</p> <p>3. Listen and discuss with students audio recordings on reported cases of accidents.</p> <p>4. Ask students to report unfortunate incidents or accidents that they have witnessed.</p>
Course Assessment	<p><b>Component 1:</b> Class assignments, Tests, Homework</p> <p><b>Summary of Assessment Method:</b> Student teachers will listen to audio materials and answer questions relating to daily activities, making requests, accepting and turning down invitations, giving directions, reporting incidents, etc. Trainees will also produce monologues about themselves, their family, acquaintances, immediate environments and others. Finally, trainees will also engage in dialogues requiring simple exchange of information on services, leisure, and incidents.</p> <p>Weighting: 20%</p> <p>Assesses Learning Outcomes: Course Learning Outcome 1 to 5</p>			
	<p><b>Component 2:</b> Interim Assessment. Project works, Quizzes</p> <p><b>Summary of Assessment Method:</b> Student teachers will undertake project work based on visits to public places such as museums, monuments, public parks, markets, zoo, etc. and give oral accounts of accidents, incidents and events. They will also watch various videos of daily routines, transactions, likes and dislikes, sports and leisure, and orally answer related comprehension questions.</p> <p>Weighting: 20%</p> <p>Assesses Learning Outcomes: Course Learning Outcome 1 to 9</p>			
	<p><b>Component 3:</b> End of Semester Examinations</p> <p><b>Summary of Assessment Method:</b> Student teacher will take an oral examination consisting of:</p> <ul style="list-style-type: none"> <li>- guided interviews to provide background information about themselves and acquaintances</li> <li>- reading short texts to seek various forms of information</li> <li>- monologue on description of persons, places and events, and expressing likes and dislikes about services.</li> <li>- simulated dialogues on transactions pertaining to goods and services at restaurants and other public places.</li> </ul> <p>Weighting: 20%</p> <p>Assesses Learning Outcomes: Course Learning Outcome 1 to 9</p>			

Instructional Resources	The use of audio and video recordings, photocopies of teaching manuals, projectors, computers, loud speakers, Internet connectivity and specific websites.
Reading List (core)	<p>Augé, H., Pujols, C., Martin, L. &amp; Marlhens, C. (2004). <i>Tout va bien 1</i>. Paris : Clé International.</p> <p>Capelle, G. &amp; Menand, R. (2003). <i>Taxi ! Méthode de français 1</i>. Paris : Hachette.</p> <p>Chein, S., Mimran, R., Poisson-Quinton, S. &amp; Siréjols, E. (2012). <i>Zénith. Méthode de français</i>. Paris : Clé International.</p> <p>Delcos, J. (2000). <i>Guide de conversation</i>. Paris : Didier.</p> <p>Duranton, L. &amp; Rodier, C. (2001). <i>Document oraux</i>. Paris : Clé International.</p> <p>Girardet, J. &amp; Pêcheur, J. (2001). <i>Campus 1</i>. Paris : Clé International.</p> <p>Hugot, C., Kizirian, Waendendries, M., Berthet, A. &amp; Dailli, E. (2012). <i>Alter ego+</i>. Paris: Hachette.</p> <p>Lamoureux, J. (2001). <i>Pratique de la communication téléphone en français</i>. Grenoble : PUG.</p> <p>Martinie, B. &amp; Wachs, S. (2007). <i>Phonétique en dialogues</i>. Paris : Clé International.</p> <p>Poisson-Quinton, S., Mahéo-Le Coadic, M. &amp; Vergne-Sirieys, A. (2005). <i>Festival 1</i>. Paris: Clé International.</p> <p>Siréjols, E. (2007). <i>Vocabulaire en dialogues</i>. Paris : Clé International.</p>
Additional Reading List	<p>Français facile <a href="http://www.francaisfacile.com/">http://www.francaisfacile.com/</a></p> <p>Français interactif <a href="http://www.laits.utexas.edu/fi/home">http://www.laits.utexas.edu/fi/home</a></p> <p>Ma France <a href="http://www.bbc.co.uk/languages/french/mafrance/flash/#">http://www.bbc.co.uk/languages/french/mafrance/flash/#</a></p> <p>Le point du FLE <a href="http://www.lepointdufle.net/">http://www.lepointdufle.net/</a></p> <p>C'est parti <a href="http://cestparti.org/16/1_French_Level_One.html#Chapitre=186">http://cestparti.org/16/1_French_Level_One.html#Chapitre=186</a></p> <p>French steps <a href="http://www.bbc.co.uk/languages/french/lj/menu.shtml">http://www.bbc.co.uk/languages/french/lj/menu.shtml</a></p> <p>Tapis Volant1 <a href="http://www.tapis.com.au/studentbook1/">http://www.tapis.com.au/studentbook1/</a></p> <p>The French Tutorials <a href="http://www.frenchtutorial.com/standard/timedate/time.php">http://www.frenchtutorial.com/standard/timedate/time.php</a></p> <p>Literacy Center <a href="http://www.literacycenter.net/numbers_fr/clock_h_fr.php">http://www.literacycenter.net/numbers_fr/clock_h_fr.php</a></p> <p>MODDOU FLE <a href="http://www.estudiodefrances.com/">http://www.estudiodefrances.com/</a></p>

### LANGUAGE STRUCTURE AND USAGE III (WRITTEN)

Course Title	Language Structure and Usage III (Written)						
Course Code	EBS 211	Course level:200	Course Value: 1	Semester 1			
Pre-requisite	EBS 139: Language Structure and Usage 2 (Written)						
Course Delivery Modes	Face-to-Face <sub>1</sub> √	Practical Activity <sub>2</sub> √	Work-Based learning <sub>3</sub> √	Seminars <sub>4</sub>	Independent Study <sub>5</sub> √	e-learning opportunities <sub>6</sub> √	Practicum <sub>7</sub>
Course Description (Indicate NTS & NTECF to be addressed)	Apart from the description done for EBS 139, this course reinforces written component of the French language. The course enables the students to develop skills in comprehension, synthesis, paraphrasing and summary writing using texts from variety of sources: extracts from novels, articles from magazines, newspapers... This course also exposes students to the writing of reports and the use of appropriate expressions in French. It is also designed to enhance students' ability to read texts in different disciplines such as education, media, health and sanitation and cultural practices among the French people. It further provides them the competence to produce texts on different essay topics such as descriptive, expository and narrative. (NTECF ; NTS 1abd, pg. 12 ; 2cf, pg.13 ; 3efkm, pg.14)						
Course Learning Outcomes	Outcomes At the end of the course, students are expected to:			Indicators			
	1. explain aspects of French syntax (NTS 2cf, pg.13)			1.3 Explain the concept of syntax. 1.4 Discuss various aspects of French syntax.			
	2. apply concepts taught in writing simple essays (NTS 2cf, pg.13)			2.1 Write simple essays by using the syntactic elements. 2.2 Analyze texts to identify syntactic elements.			
	3. write simple narrative, expository and descriptive essays (NTS 2cf, pg.13)			4.1 Compose short and simple essays using as many syntactic elements as possible. 4.2 Analyze texts to bring out features of different types of texts.			

	Units	Topics	Sub-topics (if any)	Suggested Teaching/Learning Strategies
Course Content	1.	Le Verbe (régulier et irrégulier)	<ol style="list-style-type: none"> <li>1. Présent (Verbe Régulier Et Irrégulier)</li> <li>2. Passé (Passé Composé/Imparfait/Plus-que-Parfait/Passé Récent)</li> <li>3. Futur (Futur Simple/Futur Proche/Futur Antérieur)</li> <li>4. Conditionnel (Conditionnel Présent Et Passé)</li> <li>5. Subjonctif</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with students the nature (forms) of regular and irregular verbs in various tenses.</li> <li>2. Discuss with students the use of simple and complex tenses in sentence structures.</li> <li>3. Provide students with texts in which they indicate the different forms of verbs in their various tenses.</li> <li>4. Provide students with online exercises to practise the use of various tenses.</li> </ol>
	2.	Les déterminants	<ol style="list-style-type: none"> <li>1. Genres et Nombres</li> <li>2. Définis</li> <li>3. Indéfinis</li> <li>4. Partitifs</li> <li>5. Démonstratifs (genres et nombres ; définis et indéfinis)</li> </ol>	<ol style="list-style-type: none"> <li>1. Explain to students the concept of determiners in sentence structures.</li> <li>2. Illustrate with texts the use of various determiners in sentences.</li> <li>3. Provide students with texts to analyze the use of various determiners.</li> <li>4. Provide students with online exercises to practise the use of various determiners.</li> </ol>
	3.	Les adjectifs	<ol style="list-style-type: none"> <li>1. Adjectifs qualificatifs (genres et nombres)</li> <li>2. Adjectifs possessifs</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with students the concept of adjective.</li> <li>2. Discuss with students the different types of adjectives using examples from various texts.</li> <li>3. Draw students' attention to markers</li> </ol>

				<p>of gender and number in the use of adjectives.</p> <ol style="list-style-type: none"> <li>4. Discuss with students the concept of possessive adjective.</li> <li>5. Demonstrate with examples to students the use of various forms of possessive adjectives.</li> <li>6. Provide students with texts in which they indicate the use of various types of adjectives.</li> <li>7. Provide students with lists of adjectives for them to compose their own texts.</li> </ol>
4.	Le nom	<ol style="list-style-type: none"> <li>1. Le nom : genre et nombre</li> <li>2. Types de noms: Nom propre/nom commun/Nom collectif/etc.</li> <li>3. Emploi du déterminant + Nom</li> <li>4. Nom sans déterminant</li> <li>5. Emploi du Nom /Groupe de Noms</li> <li>6. Fonctions du nom</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with students the concept of noun.</li> <li>2. Illustrate with texts to students the notions of gender and number of the noun.</li> <li>3. Discuss with students the different types of nouns using examples.</li> <li>4. Discuss with students various functions of nouns using texts.</li> <li>5. Provide students with texts in which they identify various types of nouns.</li> <li>6. Provide students with texts for them to apply markers of gender and number to various nouns.</li> <li>7. Provide students with online resources to practise the use of nouns.</li> </ol>	



	5.	Le pronom : Nature et emploi	<ol style="list-style-type: none"> <li>1. Pronom personnel</li> <li>2. Pronom possessif</li> <li>3. Pronom démonstratif</li> <li>4. Pronom relatif (que ; qui ; dont)</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with students the concept of pronoun.</li> <li>2. Discuss with students the different types of pronouns.</li> <li>3. Illustrate with examples to students various types of pronouns.</li> <li>4. Provide students with texts for them to indicate the appropriate use of pronouns.</li> <li>5. Provide students with texts in which they transform nouns into pronouns.</li> <li>6. Provide students with online resources to practise the use of pronouns.</li> </ol>
	6.	Rédaction : Texte explicatif ; texte descriptif ;	<ol style="list-style-type: none"> <li>1. Caractéristiques d'un texte explicatif: Expliquer comment faire quelque chose (la préparation d'un plat) ;</li> <li>2. Caractéristiques d'un texte descriptif : faire le portrait de quelqu'un ; rapporter un évènement</li> <li>3. Caractéristique d'un texte narratif ;</li> <li>4. Mots de liaisons/expressions utiles</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with students the concept of expository/descriptive text.</li> <li>2. Discuss with students features of each type of text.</li> <li>3. Illustrate to students features of various types of text.</li> <li>4. Discuss with students the use of different connectives for writing expository and descriptive texts.</li> </ol>
	7.	Compréhension écrite	<ol style="list-style-type: none"> <li>1. Compréhension globale du roman</li> <li>2. Compréhension détaillée du roman</li> </ol>	<ol style="list-style-type: none"> <li>1. Provide a simple and short story book at the beginning of semester for students to read outside the classroom activities.</li> </ol>

				<ol style="list-style-type: none"> <li>2. Inform students that the book will be assessed during the End-of-Semester Examination.</li> <li>3. Ask students to meet and discuss book in their study groups.</li> </ol>
Course Assessment	<p><b>Component 1:</b> Class assignments, Tests, Homework</p> <p><b>Summary of Assessment Method:</b> Student teachers will take a written quiz consisting of varied forms of items such as Multiple Choice, Fill-in-the-gaps, Open and closed-ended questions on adjectives, nouns, pronouns, determiners and tenses.</p> <p>Weighting: 10%</p> <p>Assesses Learning Outcomes: Course Learning Outcome 1 to 4</p>			
	<p><b>Component 2:</b> Interim Assessment. Project works, Quizzes</p> <p>Summary of Assessment Method: Student teachers will be made to write short and simple texts on stories, events, etc.</p> <p>Weighting: 10%</p> <p>Assesses Learning Outcomes: Course Learning Outcome 1 to 7</p>			
	<p><b>Component 3:</b> End of Semester Examinations</p> <p>Summary of Assessment Method: Student teacher will take a written examination consisting of:</p> <ul style="list-style-type: none"> <li>- grammatical aspects (determiners, adjectives, nouns, pronouns, verbs and tenses)</li> <li>- written comprehension on the recommended text (N'Guetta, T.S. (2006). <i>Plus fort que la raison</i>, Abidjan: NEI).</li> <li>- writing expository and descriptive essays on proposed themes</li> </ul> <p>Weighting: 40%</p> <p>Assesses Learning Outcomes: Course Learning Outcome 1 to 7</p>			
Instructional Resources	The use of photocopies of teaching manuals, various texts, projectors, computers, Internet connectivity and specific websites.			
Reading List (core)	<p>Bérard, E. ; Lavenne, C. (1991). <i>Grammaire utile du français</i>. Paris : Hatier/Didier.</p> <p>Bescherelle 1 (1990). <i>La Conjugaison</i>. Paris : Hatier.</p> <p>Bescherelle 3 (1984). <i>La Grammaire pour tous</i>. Paris : Hatier, Biblique Universelle.</p>			

	<p>Berger, D. et Spicacci, N. (1999). <i>Accord, méthode de français</i> (C.D. Audio).</p> <p>Chollet, I. &amp; Robert, J.M. (2007). <i>Les verbes et leurs prépositions</i>. Paris : Clé International.</p> <p>Chollet, I. &amp; Robert, J.M. (2008). <i>Les expressions idiomatiques</i>. Paris: Clé International.</p> <p>Christensen, M-H., Fuchs, M., Korach, D. &amp; Schapira, C. (1995). <i>Grammaire alphabétique</i>. Paris : Le Robert &amp; Nathan</p> <p>Dubois, J. et R. Lagane (1984). <i>La Nouvelle grammaire du français</i>. Paris : Larousse, Erudition, Coll. Traductologie, I.</p> <p>Grévisse, M. (2005). <i>Le petit Grevisse. Grammaire française</i>. Paris : de boeck.</p> <p>Kuupole, D.D. (1993). <i>Aspects of French Grammar</i>. Besançon : Couleur Locale.</p> <p>Miquel, C. (2002). <i>Vocabulaire progressif du Français</i>. Paris : Clé International.</p> <p>Paul, J. (2011). <i>La grammaire par exercice</i>. Espagne : Sejer, Bordas.</p> <p>Peyroutet, C. (2002). <i>La pratique de l'expression écrite</i>. Paris : Nathan.</p>
Additional Reading List	<p>Français facile <a href="http://www.francaisfacile.com/">http://www.francaisfacile.com/</a></p> <p>Français interactif <a href="http://www.laits.utexas.edu/fi/home">http://www.laits.utexas.edu/fi/home</a></p> <p>Ma France <a href="http://www.bbc.co.uk/languages/french/mafrance/flash/#">http://www.bbc.co.uk/languages/french/mafrance/flash/#</a></p> <p>Le point du FLE <a href="http://www.lepointdufle.net/">http://www.lepointdufle.net/</a></p> <p>C'est parti <a href="http://cestparti.org/16/1_French_Level_One.html#Chapitre=186">http://cestparti.org/16/1_French_Level_One.html#Chapitre=186</a></p> <p>French steps <a href="http://www.bbc.co.uk/languages/french/lj/menu.shtml">http://www.bbc.co.uk/languages/french/lj/menu.shtml</a></p> <p>Tapis Volant1 <a href="http://www.tapis.com.au/studentbook1/">http://www.tapis.com.au/studentbook1/</a></p> <p>The French Tutorials <a href="http://www.frenchtutorial.com/standard/timedate/time.php">http://www.frenchtutorial.com/standard/timedate/time.php</a></p> <p>Literacy Center <a href="http://www.literacycenter.net/numbers_fr/clock_h_fr.php">http://www.literacycenter.net/numbers_fr/clock_h_fr.php</a></p> <p>MODDOU FLE <a href="http://www.estudiodefrenches.com/">http://www.estudiodefrenches.com/</a></p>



## INTRODUCTION TO FRENCH LINGUISTICS

### CONTEXT

French is studied as a Foreign Language in the multilingual context in Ghana. In this space, coexist about 70 local languages out of which 10 are studied and assessed in the school system. This sociolinguistic environment tends to limit the opportunities for learners of French to acquire and use the language in various communicative situations. Since the environment of learning deprives learners of the possibilities to practise the language they are taught, the classroom becomes the ideal place for various kinds of interactions to thrive. Surrounded by French speaking countries, learners in Ghana need to develop a high level of competence in French to enable them sustain interactions with Francophones for various purposes. This therefore becomes imperative for teacher trainees in French to acquire the linguistic, sociocultural and pedagogical competences in the study of the language for them to be able to perform effectively in their profession as teachers of French. In order to achieve this goal, teacher trainees should be taken through various aspects of the French language such as the structure and use, translation, linguistics, literature and teaching methodologies/approaches.

Classroom observations have revealed that learners of French find it difficult to realise and differentiate various sounds of the French language. They also have challenges in orthography and morphology, the mastery of which is essential in written French. Consequently, trainees should be adequately prepared to effectively handle the teaching and learning of French whose complexities and norms vary from those of systems they are familiar with. In view of the intricate nature of the French language, trainees require a study of French Linguistics which will prepare them to deal with problems pertaining to the various components of the language: phonetics and phonology, semantics, morphology, syntax, etc. This knowledge can also help trainees to determine different appropriate approaches for effective teaching of the language.

Course Title	Introduction to French Linguistics						
Course Code	EBS 259	Course level: 200	Course Value: 2	Semester 1			
Pre-requisite							
Course Delivery	Face-to-	Practical	Work-Based	Seminars <sub>4</sub>	Independent	e-learning opportunities <sub>6</sub>	Practicum <sub>7</sub>

Modes	Face <sub>1</sub> √	Activity <sub>2</sub> √	learning <sub>3</sub> √		Study <sub>5</sub> √	√	
Course Description (Indicate NTS & NTECF to be addressed)	This is an introductory course in French Linguistics covering such areas as French phonetics, phonology, morphology and semantics. It also introduces students to the basic concepts in linguistics with the aim of helping them understand how the French language works as a complex system of signs. (NTS 1abd, pg. 12 ; 2cf, pg.13 ; 3efkm, pg.14 ; NTECF, pg. 20, 23, 28, 39)						
Course Learning Outcomes	Outcomes At the end of the course, students are expected to:			Indicators			
	1. explain the various concepts of French linguistics (NTS 2cf, pg.13, NTECF pg. 20, 23)			1.1 Discuss the concept of linguistics. 1.2 Discuss the concept of French Linguistics as a specific study of language system.			
	2. apply the concepts studied in analyzing everyday language (NTS 2cf, pg.13, NTECF pg. 20, 23)			1.1 Discuss various concepts associated with the study of linguistics. 1.2 Discuss various techniques in analyzing language.			
Course Content	Units	Topics	Sub-topics (if any)		Suggested Teaching/Learning Strategies		
	1.	Linguistique	1. Définitions 2. Linguistique et grammaire		1. Discuss with students the concept of linguistics. 2. Brainstorm with students on various characteristics of linguistics as a scientific study of languages. 3. Illustrate with concrete examples to students various characteristics of French as a system		

				<p>of language.</p> <ol style="list-style-type: none"> <li>4. Discuss with students grammar as a form of linguistics study.</li> <li>5. Illustrate with concrete examples to students various characteristic elements of language.</li> <li>6. Ask students to distinguish between language and grammar.</li> <li>7. Ask students to explain linguistics as a scientific study of language.</li> </ol>
2.	Concepts clés de la linguistique 1	<ol style="list-style-type: none"> <li>1. Langage (Faculté innée): <ul style="list-style-type: none"> <li>- Verbal</li> <li>- Non-Verbal</li> </ul> </li> <li>2. Langue (Variétés de Langues) <ul style="list-style-type: none"> <li>- Français Langue Première (FLP) /Français Langue Maternelle (FLM)</li> <li>- Français Langue Seconde (FLS)</li> <li>- Français Langue Etrangère (FLE)</li> <li>- Langue Véhiculaire (LV)</li> <li>- Langue Nationale (LN)</li> <li>- Langue Locale (LL)</li> </ul> </li> <li>3. Parole</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss the concept of language as a tool for communication.</li> <li>2. Illustrate with concrete examples (sketches, diagrams, etc) language as a tool for communication.</li> <li>3. Brainstorm with students on varieties of language (human, animal, plants).</li> <li>4. Discuss with students language as a system of sounds.</li> <li>5. Brainstorm with students on various characteristics of language as a system of sounds.</li> <li>6. Illustrate with audio/ video and text materials to students varieties of French as a system of sounds.</li> <li>7. Ask students to research and determine from audio/ video and text materials varieties of French as a system of sounds.</li> <li>8. Discuss with students the concept of speech.</li> <li>9. Illustrate with concrete examples various characteristics of speech.</li> </ol>	

				10. Ask students to distinguish between language and speech.
	3.	Concepts de la linguistique 2	<ol style="list-style-type: none"> <li>1. Compétence/ Performance</li> <li>2. Idiolecte/dialecte/ sociolecte</li> <li>3. Synchronie/diachronie</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with students the concepts of competence and performance.</li> <li>2. Discuss with students the relationship between competence and performance.</li> <li>3. Illustrate with concrete examples to students the difference between competence and performance in French as a system of language.</li> <li>4. Ask students to determine components of competence in French as a system of language.</li> <li>5. Ask students to determine components of performance in French as a system of language.</li> <li>6. Discuss with students the concepts of idiolect, sociolect and dialect as varieties of a language.</li> <li>7. Illustrate with concrete examples to students varieties of language forms in Ghana.</li> <li>8. Discuss with students the concepts of synchronic and diachronic study of language.</li> <li>9. Illustrate with concrete examples to students the two concepts in French as a language.</li> <li>10. Ask students to research on varieties of French as a language.</li> </ol>
	4.	Domaines de la linguistique	<ol style="list-style-type: none"> <li>1. Phonétique</li> <li>2. Phonologie</li> <li>3. Sémantique</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with students various domains of linguistics study.</li> <li>2. Illustrate with concrete examples to students</li> </ol>



			<ol style="list-style-type: none"> <li>4. Syntaxe</li> <li>5. Morphologie, etc.</li> </ol>	<ol style="list-style-type: none"> <li>3. Ask students to determine peculiarities of each of the domains of linguistics.</li> </ol>
	5.	Schéma et fonctions de la communication selon Roman Jakobson	<ol style="list-style-type: none"> <li>1. Destinateur (expressive)</li> <li>2. Destinataire (conative)</li> <li>3. Message (poétique)</li> <li>4. Code (métalinguistique)</li> <li>5. Contact (phatique)</li> <li>6. Contexte (référentielle)</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with students the communication model of Roman Jakobson.</li> <li>2. Brainstorm with students on various components and their functions in the communication model of Jacobson.</li> <li>3. Illustrate with concrete examples in French to students various components in the communication model of Jacobson.</li> <li>4. Ask students to draw the communication model of Jacobson indicating the components and their functions.</li> <li>5. Ask students to explain various functions of the model with concrete examples in French.</li> </ol>
Course Assessment	<p><b>Component 1:</b> Class assignments, Tests, Homework</p> <p><b>Summary of Assessment Method:</b> Student teachers will take a written quiz consisting of varied forms of items such as Multiple Choice, Fill-in-the-gaps, Open and closed-ended questions on concepts studied in linguistics.</p> <p>Weighting: 20%</p> <p>Assesses Learning Outcomes: Course Learning Outcome 1 to 3</p>			
	<p><b>Component 2:</b> Interim Assessment. Project works, Quizzes</p> <p>Summary of Assessment Method: Student teachers will be made to write short and simple texts on concepts studied in linguistics. They will also be made to do presentations on various domains of linguistics as a study of language.</p> <p>Weighting: 20%</p> <p>Assesses Learning Outcomes: Course Learning Outcome 4 to 5</p>			
	<p><b>Component 3:</b> End of Semester Examinations</p> <p>Summary of Assessment Method: Teacher trainees will be made to provide short-answer as well as relatively long</p>			

	<p>answers to test items on concepts treated.</p> <p>Weighting: 60%</p> <p>Assesses Learning Outcomes: Course Learning Outcome 1 to 5.</p>
Instructional Resources	The use of photocopies of various texts in Linguistics, projectors, computers, Internet connectivity and specific websites.
Reading List (core)	<p>Akmanjian, A., Demers, R. A., &amp; Harnish, R.M. (1990). <i>Linguistics, an introduction to language and communication</i>. Cambridge, Mass.: MIT Press.</p> <p>Baylon, C. &amp; Fabre, P. (1990). <i>Initiation à la linguistique</i>. Paris: Nathan Université.</p> <p>Chiss, J :-L, Filliolet, J., Maingueneau, D. (1993). <i>Linguistique françaises</i>.</p> <p>Ducrot, O. (1979). Dictionnaire encyclopédique des sciences du langage. Paris : Editions du Seuil.</p> <p>Fuchs, C. &amp; Le Goffic, P. (1992). <i>Les Linguistiques contemporaines</i>. Paris : Hachette.</p> <p>Germain, C. &amp; Le Blanc, R. (1981). <i>Introduction à la linguistique générale: données de base, exercices et corrigés</i>. Montréal : Presse de l'Université de Montréal.</p> <p>Jakobson, R. (1973). <i>Essais de linguistique générale</i>. Paris : Edition de Minuit.</p> <p>Lerot, J. (1993). <i>Précis de linguistique générale</i>. Paris : Editions de Minuit.</p> <p>Kwofie, E. N. (2004). La diversité du français et l'enseignement de la langue française en Afrique. Paris: L'Harmattan.</p> <p>Martinet, A. (1966). <i>Eléments de la linguistique générale</i>. Paris : Armand Colin.</p> <p>Moeschler, J., &amp; Auchlin, A. (2006). <i>Introduction à la linguistique contemporaine</i>. Paris : Armand Colin.</p> <p>Monneret, P. (1999). <i>Exercice de linguistique</i>. Paris : PUF.</p> <p>Mounin, G. (1971). <i>Clefs pour la linguistique</i>. Paris : Edition de Minuit.</p> <p>Riegel, M., Pellat, J.-C. &amp; Rioul, R. (2009). <i>Grammaire méthodique du français</i>. Paris : PUF.</p> <p>de Saussure, F. (1967). <i>Cours de linguistiques générale</i>. Paris: Payot.</p>
Additional Reading List	

## **CURRICULUM STUDIES IN FRENCH**

### **CONTEXT**

French is studied as a Foreign Language in the multilingual context in Ghana. In this space, coexist about 70 local languages out of which 10 are studied and assessed in the school system. This sociolinguistic environment tends to limit the opportunities for learners of French to acquire and use the language in various communicative situations. Since the environment of learning deprives learners of the possibilities to practise the language they are taught, the classroom becomes the ideal place for various kinds of interactions to thrive. Surrounded by French speaking countries, learners in Ghana need to develop a high level of competence in French to enable them sustain interactions with Francophones for various purposes. This therefore becomes imperative for teacher trainees in French to acquire the linguistic, sociocultural and pedagogical competences in the study of the language for them to be able to perform effectively in their profession as teachers of French. In order to achieve this goal, teacher trainees should be taken through various aspects of the French language such as the structure and use, translation, linguistics, literature and teaching methodologies/approaches.

Teaching and learning of French has been seen to be heavily hinged on the grammar-translation method which has been far discredited. Most teachers of the language are either not abreast with the new trends in teaching or deliberately refuse to adopt and adapt innovative approaches. This isomorphic behaviour of some teachers of French tends to demotivate young learners of the language who are attracted to innovations. For effective teaching and learning of various content areas in French, the teacher trainee is expected to be sufficiently equipped to impart competences to future learners of French through the adoption of suitable teaching methodologies/approaches. The programme adequately provides for this need by developing areas of teaching such as knowledge of theories of child development, language acquisition theories, curriculum development, assessment and evaluation, classroom management, preparation of teaching and learning materials, technologies in teaching and learning of French, gender inclusiveness, among others.

Course Title	Curriculum Studies in French						
Course Code	EBS 240	Course level: 200	Course Value: 2	Semester 1			
Pre-requisite							
Course Delivery Modes	Face-to-Face <sub>1</sub> √	Practical Activity <sub>2</sub> √	Work-Based learning <sub>3</sub> √	Seminars <sub>4</sub>	Independent Study <sub>5</sub> √	e-learning opportunities <sub>6</sub> √	Practicum <sub>7</sub> √
Course Description (Indicate NTS & NTECF to be addressed)	This course is designed to offer students the opportunity to discuss the basic concepts and issues related to the curriculum of French in Ghana. Students will explore the overall structure and contents of pre-university education curriculum of French. The course further examines the processes involved in curriculum development, implementation and evaluation in general. The approaches that would be used in the delivery of this course would prepare trainees to ensure the learning progress of all students by projecting gender roles and issues relating to equity and inclusivity. (NTS 1 abf pg.13; NTECF pg. 28 ; NTS 3 cik, NTS 2c, NTECF pg. 20, NTS 3 klm, NTS 1 ab, 2c. 3 aegjk, NTECF pg. 29)						
Course Learning Outcomes	Outcomes			Indicators			
	At the end of the course, students are expected to:						
	1. analyze different conceptions of the term “curriculum” and basic curriculum related issues (NTS 1 abf pg.13; NTECF pg. 28)			1.1 Explain various conception of the term ‘curriculum’ 1.2 Explain elementary issues related to curriculum.			
2. describe the overall structure and content of pre-university curriculum in Ghana (NTS 1 abf pg.13; NTECF pg. 28)			1.1 Discuss various elements that constitute the structure of pre-university curriculum for French in Ghana. 1.2 Discuss the content of pre-university curriculum for French in Ghana.				

	2. apply the basic principles and processes in curriculum development in appraising the curriculum in the Junior High School (JHS) and Senior High School (SHS) (NTS 1 abf pg.13; NTECF pg. 28)		2.1 Discuss general principles and processes involved in curriculum development. 2.2 Discuss principles and processes in curriculum development for the appraisal of the JHS and SHS curricular of French in Ghana.	
	3. discuss curriculum implementation processes as well as major requirements for implementation of the JHS and SHS curricular (NTS 1 abf pg.13; NTECF pg. 28)		3.1 Discuss various processes of curriculum implementation. 3.2 Discuss major requirements for the implementation of JHS and SHS curricular for French.	
	4. critique and offer suggestions for improving the JHS and SHS curricular (NTS 1 abf pg.13; NTECF pg. 28)		4.1 Discuss criteria for critiquing curricular of French for the JHS and SHS 4.2 Identify shortcomings in the JHS and SHS curriculum for French 4.3 Propose steps/measures for improvement of JHS and SHS curricular for French.	
	5. develop a mini curriculum for JHS and SHS French class (NTS 1 abf pg.13; NTECF pg. 28)		5.1 Discuss steps to develop a mini curriculum for French 5.2 Propose a project for the development of a mini curriculum for JHS and SHS in French.	
	Units	Topics	Sub-topics (if any)	Suggested Teaching/Learning Strategies
Course Content	1.	Concept du curriculum (perceptives anglophone et francophone)	1. Nature 2. Perspectives du curriculum 3. Eléments du curriculum	1. Discuss with students the concept of curriculum development 2. Discuss with students various views on the concept of curriculum 3. Illustrate with concrete examples to students the various views of curriculum development.

				<ol style="list-style-type: none"> <li>4. Brainstorm with students on various components of a curriculum.</li> <li>5. Ask students to identify the various features of the French curriculum for JHS and SHS in Ghana.</li> </ol>
	2.	Déterminants du curriculum	<ol style="list-style-type: none"> <li>1. Philosophie</li> <li>2. Société/Culture</li> <li>3. Connaissance</li> <li>4. Finance</li> <li>5. Caractéristiques des apprenants</li> <li>6. Caractéristiques de la matière</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with students factors considered in developing curricular.</li> <li>2. Illustrate with concrete examples to students factors considered in curriculum development.</li> <li>3. Ask students to determine other relevant factors required for curricular development.</li> </ol>
	3.	Types du curriculum (anglophone + francophone)	<ol style="list-style-type: none"> <li>1. Curriculum Formel/Officiel/Ecrit/Planifié</li> <li>2. Curriculum réel</li> <li>3. Curriculum testé</li> <li>4. Curriculum perçu</li> <li>5. Curriculum recommandé</li> <li>6. Curriculum idéologique</li> <li>7. Curriculum soutenu</li> <li>8. Curriculum opérationnel</li> <li>9. Curriculum caché</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with students various types of curricular from the anglophone perspective.</li> <li>2. Discuss with students various types of curricular from the francophone perspective.</li> <li>3. Illustrate with concrete examples to students various types of curricular.</li> <li>4. Ask students to distinguish between types of curricular using examples.</li> </ol>
	4.	Développement du Curriculum	<ol style="list-style-type: none"> <li>1. Définitions des modèles</li> <li>2. Modèles de Tyler, Taba, Wheeler</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with students various models of curriculum development.</li> <li>2. Illustrate with examples models of</li> </ol>

			3. Critique des modèles	<p>curriculum development by renowned experts such as Taba, Tyler and Wheeler.</p> <p>3. Ask students to distinguish between features of models discussed.</p>
	5.	Mise en œuvre du curriculum	<p>1. Mesures pour l'implémentation du curriculum</p> <p>2. Défis dans l'implémentation du curriculum</p>	<p>1. Discuss with students measures for curriculum implementation.</p> <p>2. Brainstorm with students on challenges of curriculum implementation.</p>
	6.	Evaluation du curriculum	<p>1. Critères d'évaluation</p> <p>i. Buts</p> <p>ii. Types</p> <p>iii. Champ du contenu</p>	<p>1. Discuss with students criteria for curriculum evaluation.</p> <p>2. Illustrate with examples to students components of the criteria for evaluation of curricular.</p> <p>3. Provide students with examples of curricular to evaluate.</p>
	7.	Analyse du syllabus de JHS et SHS	<p>1. Rationnel</p> <p>2. Structure</p> <p>3. Objectives généraux</p> <p>4. Unités</p> <p>5. Processus d'enseignement</p> <p>6. Ressources</p> <p>7. Dimensions des profils</p> <p>8. Sujets problématiques aux apprenants</p>	<p>9. Discuss with students criteria for evaluating the syllabus.</p> <p>10. Illustrate with examples to students components of the criteria for evaluation of the syllabus.</p> <p>11. Provide students with examples of syllabi of French for JHS and SHS to evaluate.</p>
	8.	Application – mini		<p>1. Explain to students steps to develop a syllabus.</p>

		syllabus		2. Give students a project on development of syllabus for French at JHS and SHS levels.
Course Assessment	<p><b>Component 1:</b> Class assignments and Homework</p> <p>Summary of Assessment Method: Teacher trainees will be made to produce individual/group presentations on notions in curriculum development.</p> <p>Weighting: 20%</p> <p>Assesses Learning Outcomes: Course Learning Outcome 1 to 3</p>			
	<p><b>Component 2:</b> Interim Assessment. Project works, Quizzes</p> <p>Summary of Assessment Method: Teacher trainees will be made to analyze in groups the syllabus for French at the JHS and SHS levels in Ghana. They will also be made to answer short-answer test items on topics treated.</p> <p>Weighting: 20%</p> <p>Assesses Learning Outcomes: Course Learning Outcome 1 to 6</p>			
	<p><b>Component 3:</b> End of Semester Examinations</p> <p>Summary of Assessment Method: Teacher trainees will be made to provide short-answer as well as relatively long answers to test items on topics treated.</p> <p>Weighting: 60%</p> <p>Assesses Learning Outcomes: Course Learning Outcome 1 to 7</p>			
Instructional Resources	The use of photocopies of various texts on pedagogy, projectors, computers, Internet connectivity and specific websites.			
Reading List (core)	<p>Adentwi, K. I. (2005). <i>Curriculum development: An introduction</i>. Kumasi: Wilas Press Limited.</p> <p>Bishop, G. (1985). <i>Curriculum development: A textbook for students</i>. London: Macmillan Publishers Limited.</p> <p>Dampson, D. G. (2009). <i>The School Curriculum: the Ghanaian Perspective</i>. Cape Coast: Edsam Computers and</p>			



	<p>Publications.</p> <p>Glatthorn, A., Boschee, F., &amp; Whitehead, B. (2006). <i>Curriculum Leadership</i>. London: SAGE Publications.</p> <p>Kelly, H. (1989). <i>The Curriculum: Theory and Practice</i> (3<sup>rd</sup> edition). London: Paul Chapman Publishing Limited</p> <p>Oliva, P. F. (1992). <i>Developing the curriculum</i> (3<sup>rd</sup> edition). New York: Harper Collins Publishers Inc.</p> <p>Pratt, D. (1980). <i>Curriculum design and development</i>. New York: Harcourt Brace Jovanovich Inc.</p> <p>Marsh, C., &amp; Willis, G. (2007). <i>Curriculum - Alternative Approaches, Ongoing Issues</i>. New Jersey: Prentice Hall.</p> <p>Owusu, A., &amp; Yiboe, K. (2014). Participation in Professional Programmes and Curriculum Implementation: Perspectives of Senior High School French Teachers in Ghana. <i>International Journal of Education and Research</i> 1 (10), 1 – 12.</p> <p>Owusu, A., &amp; Yiboe, K. (2013). Teacher qualifications, experience and perceptions as predictors of implementation of the Senior High School French curriculum in Ghana. <i>International Journal of Education and Research</i> 1(10), 1 – 12.</p> <p>Wheeler, D. K. (1983). <i>Curriculum process</i>. London: Hodder and Stoughton.</p> <p>Yakubu, J. (2000). <i>Principles of Curriculum Design</i>. Accra: Ghana Universities Press.</p>
Additional Reading List	

## HEALTH AND SAFETY ISSUES

### CONTEXT

Physical education helps students to develop the skills, knowledge, and competencies to live healthy and physically active lives at school and for the rest of their life. They learn ‘in, through, and about’ movement, gaining an understanding that movement is integral to human expression and can contribute to people’s pleasure and enhance their lives. This course therefore seeks to empower trainees to participate in physical activity and understand how this influence their own well-being and that of their prospective students. By demonstrating the benefits of an active life style, they encourage others to participate in sport, dance, exercise, recreation, and adventure pursuits. Physical education engages and energises students. It provides authentic contexts in which to learn. In this course students are challenged to develop their physical, professional and interpersonal skills. This course will enable students to experience movement and understand the role that it plays in their lives and that of their prospective students. Students can contribute to the development of physical education programmes and choose their own level of participation. The resulting learning environment challenges their thinking and helps to promote an interest in lifelong leisure and recreational pursuits.

Course Title	Health, Safety and Social Issues						
Course Code	EBS 219	Course Level:	200	Credit Value:	2	Semester	1
Pre-requisite	<b>Student teachers must have knowledge in</b> health, safety and social issues in the senior high school.						
Course Delivery Modes	Face -to -face (√)	Practical Activity (√)	Work-Based Learning (√)	Seminars (√)	Independent Study (√)	e-learning opportunities (√)	Practicum (√)
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	This is a special course designed to provide students with knowledge and skills that will enable them improve the developmental quality of school children through better handling and health and safety management. It equips students with the ability to manage social, health, safety and sanitation issues effectively and to improve professional teacher accountability for the welfare of the children.  NTS 1a pg 12, 2c,d,e,f pg 13, 3b,c,e,g,i,j,k,l,m pg 14 and NTECF requirements.						

Course Learning Outcomes: including INDICATORS for each learning outcome	On successful completion of the course, student teachers will be able to:	Indicators
	CLO 1. Demonstrate Knowledge and understanding of how to identify factors that promote growth of children. (NTS 2c, pg13, 3d, pg14 & NTECF)	1.1 Explain the phrase ‘growth and development’. 1.2 Describe the physical changes that may occur during growth and development. 1.3 Elucidate the factors that bring about growth and development in children.
	CLO 2. Demonstrate Knowledge and understanding of skills in handling basic school children. (NTS 2c,e,f, pg13, 3i, pg14 & NTECF)	2.1 Enumerate the skills needed to handle basic school children in general. 2.2 Recommend and explain advance skills that teachers need in order to handle the basic school children.
	CLO 3. Demonstrate Knowledge and understanding of how to manage any adverse conditions in the basic school environment. (NTS 2c, pg13, 3b, pg14 & NTECF)	3.1 Mention and describe the various types of hostile situations in school environments. 3.2 Categorize them into levels of increasing severity. 3.3 Determine ways of handling each category and related issues.
	CLO 4. Demonstrate Knowledge and understanding of how to advocate for providing a conducive environment in the basic school. (NTS 2a,c, pg13, 3b, pg14 & NTECF)	4.1 Paint a picture of how an ideal basic school environment should look like. 4.2 Develop a framework for ‘dos and don’ts’ of stakeholders of the school. 4.3 Out of the framework, develop a one page document to be provided to authorities ( staff, assistant headteacher, school management board, District Director of Education, Regional Director of Education, Director General of Education, etc.) as a conducive environmental working document for your school.
	CLO 5. Demonstrate Knowledge and understanding of how to liaise with the stake holders to develop basic schoolers to achieve the desirable goals. (NTS 2a,c, pg13, 3b, pg14 & NTECF)	5.1 List a number of achievable goals you would want to realize as a basic school teacher for the children in a term/year. 5.2 State the various ways through which the teacher can communicate with stakeholders of the school for various

				assistance in order to achieve these goals.
	CLO 6. Demonstrate Knowledge and understanding of how to identify and advocate for health and safe practices in the school. (NTS 2a,c, pg13, 3b, pg14 & NTECF)			6.1 Mention and explain the various injuries and diseases that school children are likely to get from the school environment. 6.2 Identify the nature and various visible symptoms of the listed injuries and diseases respectively. 6.3 Develop a notice on health and safety practices to be posted on the classroom door(s)/notice board(s) after approval by the Headteacher.
	CLO 7. Demonstrate Knowledge and understanding of practical procedures in First Aid. (NTS 2a,c, pg13, 3b, pg14 & NTECF)			7.1 Briefly explain the scope of First Aid in general. 7.2 Describe briefly what is expected of school teacher when various First Aid issues arise in the class room.
	CLO 8. Demonstrate Knowledge and understanding of outlining steps in dealing with emergency health problems with school children.			8.1 Create various scenarios of emergency health issues that may occur in class. 8.2 List the chronological first aid steps to take in order to salvage the situation.
Course Content: Health, Safety and Social Issues in ECE	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	1	Promoting Growth in Children	<ul style="list-style-type: none"> <li>Factors affecting growth of children</li> </ul> Psycho-social Psychological, Social and Play (materials, space, time supervision) Health-Physical (shelter/protection, safety, rest, sleep) and Nutrition (food and water) <ul style="list-style-type: none"> <li>Role of schools, teachers and parents in promoting growth in children</li> </ul>	Discussion
	2	Ensuring a Healthy Environment	<ul style="list-style-type: none"> <li>Importance of a healthy environment</li> <li>Environmental safety/ sanitation</li> <li>Role of school, teachers, parents and</li> </ul>	Discussion/Observation/Transect walk/Role play/Field trip to school

		for Children	community in promoting a healthy school and community environment	
3	Building a Healthy Social Environment	<ul style="list-style-type: none"> <li>• Consistency, Routines and Limits</li> <li>• Encouraging desirable expressions of feelings</li> <li>• Behaviour modelling (children with different behaviour/ attitudes)</li> <li>• Facilitating social skills</li> <li>• Games or group activities to develop acceptable behaviour (indoor and outdoor activities)</li> </ul>	Discussion/Observation/Modelling/Demonstration/Role play	
4	Injuries and First Aid	<ul style="list-style-type: none"> <li>• Common injuries at the school</li> <li>• Source of injuries among children</li> <li>• First aid for wounds</li> <li>• Importance of first aid in schools</li> <li>• Minimizing the occurrence of injuries (safety practices)</li> <li>• Managing first aid kit and child referrals</li> </ul>	Discussion/Demonstration/Role play	
5	Child Nutrition	<ul style="list-style-type: none"> <li>• Food types/groups</li> <li>• Nutrients (Protein, carbohydrate etc.)</li> <li>• Nutritional requirements of children</li> <li>• Various nutritional levels</li> <li>• Identifying children with nutrient deficiencies (signs and symptoms of good and poor nutrition)</li> <li>• Factors affecting choice of food</li> <li>• Importance of nutrition in school children</li> </ul>	Discussion/Case studies/Brainstorming/Guest speaker	
6	Common Diseases among Pre-schoolers	<ul style="list-style-type: none"> <li>• Congenital diseases</li> <li>• Intestinal infections</li> <li>• Respiratory Tract infections</li> <li>• Malarial diseases</li> </ul>	Case studies/Discussion/Guest speaker/Demonstration	

			<ul style="list-style-type: none"> <li>• The need for knowledge on the diseases</li> <li>• Causes, effects and preventive measures</li> <li>• Hygiene practices (hand washing, food and water safety, toileting and diapering, etc.)</li> </ul>	
Course Assessment Components: (Educative assessment of, for and as learning)	COMPONENTS 1 & 2 FORMATIVE ASSESSMENTS - 40% AND COMPONENT 3, SUMMATIVE - 60%			
	Component 1 Formative assessment Quizzes and Exercises 20% Assesses: CLO 1,2,3,4,5,6 and 7 (NTS 1b, 2c, d, e, 3 a, c, h; NTECF 16,20, 45 )			
	Component 2 Practical observation, group and individual presentations and analysis of various activities. 20% Assesses : CLO 1, 2, 3, 4, 5, 6 and 7 (NTS 1b, 2c, d, e, 3 a, c, h; NTECF 16, 20 45 )			
	Component 3 Summative assessment ( End of semester examination on units 1 to 8 ) 60%			
Instructional Resources	7. Projector and screen 8. Computer (Laptop) for playing back 9. First Aid box, Student Mattress, Gloves, etc,			
Required Text (core)	Hamill, P. V. V. (1977). NCHC growth curves for children, vital and health statistics: Series II, data from the national health survey, No. 165. Washington, DC: US Government Printing Office. (DWE1178-1650). Ogah, J. K. (2009). <i>A basketful of health and safety for the early childhood environment</i> . Paper presented at the National Conference on Early Childhood Education. University of Cape Coast. December 16-17, 2009.			
Additional Reading List	Ogah, J. K. (2010). Developing and promoting active lifestyles for healthy living and national development. <i>West Africa Journal of Physical &amp; Health Education</i> , 14, 47-70. Sue, R. W. (1994). <i>Essentials of nutrition and diet therapy</i> (6 <sup>th</sup> ed.). St Louis: The C.V. Mosby Company. Boston: WCB/McGraw Hill.			

## HEALTH AND PHYSICAL FITNESS

### CONTEXT

Physical education helps students to develop the skills, knowledge, and competencies to live healthy and physically active lives at school and for the rest of their life. They learn ‘in, through, and about’ movement, gaining an understanding that movement is integral to human expression and can contribute to people’s pleasure and enhance their lives. This course therefore seeks to empower trainees to participate in physical activity and understand how this influence their own well-being and that of their prospective students. By demonstrating the benefits of an active life style, they encourage others to participate in sport, dance, exercise, recreation, and adventure pursuits. Physical education engages and energises students. It provides authentic contexts in which to learn. In this course students are challenged to develop their physical, professional and interpersonal skills. This course will enable students to experience movement and understand the role that it plays in their lives and that of their prospective students. Students can contribute to the development of physical education programmes and choose their own level of participation. The resulting learning environment challenges their thinking and helps to promote an interest in lifelong leisure and recreational pursuits.

<b>Course Title</b>	<b>Health and Physical Fitness</b>						
<b>Course Code</b>	<b>EBS 218</b>	<b>Course Level:</b>	<b>200</b>	<b>Credit Value:</b>	<b>1</b>	<b>Semester</b>	<b>1</b>
<b>Pre-requisite</b>	<b>Student teachers must have knowledge in Health and Physical fitness activities in the senior high school.</b>						
<b>Course Delivery Modes</b>	<b>Face -to - face (v)</b>	<b>Practical Activity (v)</b>	<b>Work-Based Learning (v)</b>	<b>Seminars (v)</b>	<b>Independent Study (v)</b>	<b>e-learning opportunities (v)</b>	<b>Practicum (v)</b>
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	This course equips students with competencies to enable them to choose and pursue active and healthy lifestyles. It involves the concept of wellness and physical fitness. Emphasis is placed on knowledge and skill acquisition in health related fitness and the various factors that affect wellness and fitness. The course includes practical components related to physical activity, health examination and personal and group exercise planning. Practical activities include jogging, power walking, aerobics, skipping, weight training, etc. Drug use and dietary practices are also examined.  <b>NTS 1a pg 12, 2c,d,e,f pg 13, 3b,c,e,g,i,j,k,l,m pg 14 and NTECF requirements.</b>						
<b>Course Learning</b>	<b>On successful completion of the course, student teachers</b>				<b>Indicators</b>		

<b>Outcomes: including INDICATORS for each learning outcome</b>	<b>will be able to:</b>			
	CLO 1. Demonstrate Knowledge and understanding of how to measure and monitor changes in the human body as a result of physical activity . (NTS 2c, pg13, 3d)			1.1 Explain the phrase 'body adaptation to exercise'. 1.2 Describe the physical changes that may occur as a result of physical activities. 1.3 Elucidate how to measure these physical changes that may occur due to the physical activity.
	CLO 2. Demonstrate Knowledge and understanding of how to articulate the benefits of regular physical activity. (NTS 2c,e,f, pg13, 3i, pg14)			2.1 State the effects of acute and chronic bouts of physical activity. 2.2 Recommend and explain the benefits or otherwise of engaging in these bouts.
	CLO 3. Demonstrate Knowledge and understanding of how to differentiate between health related and motor skill related physical fitness. (NTS 2c, pg13, 3b, pg14 )			3.1 Mention and describe the various types of physical fitness activities. 3.2 Categorize the activities into health related and motor skill physical fitness related.
	CLO 4. Demonstrate Knowledge and understanding of how to develop the attitude of keeping fit and living healthy. (NTS 2a,c, pg13, 3b, pg14)			4.1 Develop interesting physical activities that are addictive in nature. 4.2 Briefly describe eating habits for wellbeing. 4.3 Demonstrate the effect of bad eating habits.
	CLO 5. Demonstrate Knowledge and understanding of how to develop fitness programmes that meet the needs of individuals and special groups. (NTS 2a,c, pg13, 3b, pg14)			Develop physical activity schedules for: 5.1 beginners 5.2 intermediates 5.3 experts 5.4 persons with special needs
	CLO 6. Demonstrate Knowledge and understanding of practical activities that enhance physical fitness. (NTS 2a,c, pg13, 3b, pg14)			6.1 Mention and explain physical activities that positively impacts fitness. 6.2 Demonstrate the various intensities needed to achieve the positive impact.
	CLO 7. Demonstrate Knowledge and understanding of the role of lifestyle practices in health and wellness. (NTS 2a,c, pg13, 3b, pg14)			7.1 Identify the various lifestyles that affects the health and wellness of individuals. 7.2 Briefly describe alternatives that has a positive influence.
<b>Course Content: Physical Fitness and</b>	<b>Units</b>	<b>Topics:</b>	<b>Sub-topics (if any):</b>	<b>Teaching and learning activities to achieve learning outcomes</b>



<b>Wellness</b>	<b>1</b>	Physical Fitness and Wellness	<ul style="list-style-type: none"> <li>• Definition of Physical Fitness and Wellness.</li> <li>• Benefits of being fit and well (social, economic, emotional and personal)</li> </ul>	Discussion/Brainstorming
	<b>2</b>	Physical Fitness	<ul style="list-style-type: none"> <li>• Types – Health-related and Motor skill-related</li> <li>• Components – definition and how to enhance.</li> </ul>	Discussion/Demonstration
	<b>3</b>	Components of Wellness	<ul style="list-style-type: none"> <li>• Physical, Social, Emotional, Spiritual, Environmental, Occupational, Intellectual</li> </ul>	Discussion
	<b>4</b>	Knowing your Body	<ul style="list-style-type: none"> <li>• Taking of heart rate, blood pressure, BMI and body composition</li> </ul>	Practical measurements
	<b>5</b>	Nutrition and Wellness	<ul style="list-style-type: none"> <li>• Relationship between nutrition and diet</li> <li>• The role of nutrition and health</li> <li>• Dietary practices and their effects on wellness</li> </ul>	Discussion
	<b>6</b>	Lifestyle and wellness	<ul style="list-style-type: none"> <li>• Role of lifestyle practices in health – physical activity, alcohol, tobacco and other drugs, rest, sleep, recreation, etc.</li> </ul>	Discussion/Debate/Mock trial/Sharing personal experiences
	<b>7</b>	Fitness Programme	<ul style="list-style-type: none"> <li>• Procedure for beginning a fitness programme</li> <li>• Basic elements of training</li> </ul>	Discussion Problem solving Project

			activities (warm up, workout, cool down)	
	<b>8</b>	Physical Fitness and Wellness Practical Activities	<ul style="list-style-type: none"> <li>• Promotion of physical fitness and wellness(education and exercise)</li> <li>• Procedures for teaching basic movement activities(warm up sessions, activity sessions, etc)</li> <li>• Practical(motor) activities for children (Power walking and jogging, aerobic dance, etc)</li> </ul>	Practical activities carried out throughout the semester
Course Assessment Components: (Educative assessment of, for and as learning)	<b>COMPONENTS 1 &amp; 2 FORMATIVE ASSESSMENTS - 40% AND COMPONENT 3, SUMMATIVE - 60%</b>			
	Component 1 Formative assessment Quizzes and Exercises 20% Assesses: CLO 1,2,3,4,5,6 and 7)			
	Component 2 Practical observation, group and individual presentations and analysis of various activities. 20% Assesses : CLO 1, 2, 3, 4, 5, 6 and 7 (NTS 1b, 2c, d, e, 3 a, c, h; NTECF 16, 20 45 )			
	Component 3 Summative assessment ( End of semester examination on units 1 to 8 ) 60%			
Instructional Resources	10. Projector and screen 11. Computer (Laptop) for playing back 12. Cones, markers, stop watches, whistles, tape measures, P.A. System, Score sheets, memo pads etc.			
Required Text (core)	Ammah, J. (2004). <i>Physical education for the basic school teacher</i> . Winneba: The Institute for Educational Development and Extension. Karbo, J., Ogah, J. K., & Domfeh, C. (2005). <i>An introduction to physical education</i> (Centre			

	for Continuing Education Module, University of Cape Coast). Cape Coast: University Printing Press.
Additional Reading List	<p>Arends, R. (1995). <i>Learning to teach</i>. New York, NY: McGraw Hill, Inc.</p> <p>Attah, K. K., &amp; Awuni, W. (2001). <i>Teaching physical education in basic schools</i>. Accra: Ministry of Education.</p> <p>Bucher, C. A. (1992). <i>Foundations of physical education</i>. New York, NY: C.V. Mosby.</p> <p>Domfeh, C., Attah, K. K., &amp; Ayensu, E. K. (2006). <i>Teaching physical education: A guide to teachers</i>. Kumasi: Learners Publishers.</p> <p>Lumpkin, A. (1998). <i>Physical education and sport</i> (4<sup>th</sup> ed.). New York, NY: WCB/McGraw-Hill.</p> <p>Ogah, J. K. (2010). Developing and promoting active lifestyles for healthy living and national development. <i>West Africa Journal of Physical &amp; Health Education</i>, 14, 47-70.</p> <p>Ogah, J. K. (2009). <i>A basketful of health and safety for the early childhood environment</i>. Paper presented at the National Conference on Early Childhood Education. University of Cape Coast. December 16-17, 2009.</p> <p>Sue, R. W. (1994), <i>Essentials of nutrition and diet therapy</i> (6<sup>th</sup> ed.). St Louis: The C.V. Mosby Company.</p> <p>Wuest, D. A., &amp; Bucher, C. A. (2001). <i>Foundations for physical education and sport</i>. Boston: WCB/McGraw Hill.</p>

## GAME ACTIVITIES FOR BASIC SCHOOLS

### CONTEXT

Physical education helps students to develop the skills, knowledge, and competencies to live healthy and physically active lives at school and for the rest of their life. They learn ‘in, through, and about’ movement, gaining an understanding that movement is integral to human expression and can contribute to people’s pleasure and enhance their lives. This course therefore seeks to empower trainees to participate in physical activity and understand how this influence their own well-being and that of their prospective students. By demonstrating the benefits of an active life style, they encourage others to participate in sport, dance, exercise, recreation, and adventure pursuits. Physical education engages and energises students. It provides authentic contexts in which to learn. In this course students are challenged to develop their physical, professional and interpersonal skills. This course will enable students to experience movement and understand the role that it plays in their lives and that of their prospective students. Students can contribute to the development of physical education programmes and choose their own level of participation. The resulting learning environment challenges their thinking and helps to promote an interest in lifelong leisure and recreational pursuits.

Course Title	Game Activities for Basic Schools						
Course Code	EBS 213	Course Level:	200	Credit Value	3	Semester	1
Pre-requisite	Student teachers have knowledge in some games played in the senior high school and level 100.						
Course Delivery Modes	Face -to - face (√)	Practical Activity (√)	Work-Based Learning (√)	Seminars (√)	Independent Study	e-learning opportunities	Practicum (√)
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	<p>The purpose of this course is to introduce students to a variety of developmentally appropriate games for children to express and challenge themselves and to have fun. These activities include fundamental movement skills involving throwing, catching, pulling, pushing, striking, dodging, running and jumping. Some activities require individual challenge but others require teamwork and cooperation. Selected activities include those found in the school syllabus, focusing on football, netball, volleyball and handball. Students will be taken through the process and principles of selecting or designing game activities for children.</p> <p>NTS 1a pg 12, 2c,d,e,f pg 13, 3b,c,e,g,i,j,k,l,m pg 14 and NTECF requirements.</p>						

Course Learning Outcomes: including INDICATORS for each learning outcome	On successful completion of the course, student teachers will be able to:			Indicators
	CLO 1. Demonstrate Knowledge and understanding of how to exhibit movement skills such as throwing, catching, pushing, dodging, running and kicking in physical education and sports activities. (NTS 2c, pg13, 3d, pg14)			1.3 Explain and demonstrate activities that leads to coordination development. 1.4 Demonstrate basic throwing, catching, pushing, dodging, running and kicking activities.
	CLO 2. Demonstrate Knowledge and understanding of the various skills in football, netball, volleyball and handball. (NTS 2c,e,f, pg13, 3i, pg14)			2.1 Be able to perform the progressive basic skills in the selected events. 2.2 Demonstrate how to teach these progressive skills from the basics to the end.
	CLO 3. Demonstrate Knowledge and understanding of how to construct the playing surfaces of the four sports. (NTS 2c, pg13, 3b, pg14)			3.1 Should be able to demonstrate knowledge of construction in Core Mathematics from SHS. 3.2 Should be able to construct scaled down sectors. 3.3 Should be able to transfer the scaled drawing into reality on the field.
	CLO 4. Demonstrate Knowledge and understanding of how to apply tactics in game situations . (NTS 2a,c, pg13, 3b, pg14)			4.1 Demonstrate the understanding of basic tactics in the selected games. 4.2 Be able to explain how the various tactics in the selected disciplines work.
	CLO 5. Demonstrate Knowledge and understanding of how to interpret the rules governing the sports in game situations. (NTS 2a,c, pg13, 3b, pg14)			5.1 Demonstrate basic knowledge of rules in the selected games. 5.2 Get the understanding of the spirit of the rules. 5.3 Be able to explain the rules.
Course Content: Game Activities for Basic	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes

Schools		Fundamental Movement and Skills	<ul style="list-style-type: none"> <li>• Locomotor activities – running (e.g. <i>pilolo</i>, rats and rabbits, <i>antoankyire</i>, number games, etc), jumping (eg <i>ampe</i>, skipping, <i>tumatu</i>), pulling (e.g. picking tails), clapping (e.g. <i>ampe</i>)</li> <li>• Non-locomotor – rhythmic clapping (<i>Robert Mensah</i>), pulling (e.g. tug of war)</li> </ul> Manipulative skills – <i>chaskele</i> , ball juggling games, bouncing games, dribbling games, ball-hand-eye coordination activities, target hitting games (darts, bowling etc.)	Demonstration Practical
		Basic skills in football netball, handball, and volleyball	<ul style="list-style-type: none"> <li>• Various fundamental techniques in all listed games</li> <li>• Player positions</li> <li>• Tactics of play</li> <li>• Construction of various playing surfaces</li> </ul> Rules of the games	Discussion/Demonstration/Observation/Practical
Course Assessment Components: (Educative assessment of, for and as learning)	Component 1			
	Formative Assessment Quizzes and Exercises 20%			
	Assesses: CLO 1,2,3,4 and 5 (NTS 1b, 2c, d, e, 3 a, c, h)			
Instructional Resources	Component 2			
	Practical observation, group and individual presentations and analysis of various activities. 20%			
	Assesses : CLO 1, 2, 3, 4 and 5 (NTS 1b, 2c, d, e, 3 a, c, h )			
Instructional Resources	Component 3			
	Summative assessment (End of semester examination on units 1 and 2 ) 60%			
	4. Projector and screen 5. Computer (Laptop) for playing back Cones, markers, stop watches, whistles, tape measures, Footballs, Volleyballs, Netballs and Handballs, etc.			

Required Text (core)	<p>Ammah, J. (2004). <i>Physical education for the basic school teacher</i>. Winneba: The Institute for Educational Development and Extension.</p> <p>Karbo, J., Ogah, J. K., &amp; Domfeh, C. (2005). <i>An introduction to physical education</i> (Centre for Continuing Education Module, University of Cape Coast). Cape Coast: University Printing Press.</p>
Additional Reading List	<p>Arends, R. (1995). <i>Learning to teach</i>. New York, NY: McGraw Hill, Inc.</p> <p>Attah, K. K., &amp; Awuni, W. (2001). <i>Teaching physical education in basic schools</i>. Accra: Ministry of Education.</p> <p>Bucher, C. A. (1992). <i>Foundations of physical education</i>. New York, NY: C.V. Mosby.</p> <p>Domfeh, C., Attah, K. K., &amp; Ayensu, E. K. (2006). <i>Teaching physical education: A guide to teachers</i>. Kumasi: Learners Publishers.</p> <p>Lumpkin, A. (1998). <i>Physical education and sport</i> (4<sup>th</sup> ed.). New York, NY: WCB/McGraw-Hill.</p> <p>Ogah, J. K. (2010). Developing and promoting active lifestyles for healthy living and national development. <i>West Africa Journal of Physical &amp; Health Education</i>, 14, 47-70.</p> <p>Ogah, J. K. (2009). <i>A basketful of health and safety for the early childhood environment</i>. Paper presented at the National Conference on Early Childhood Education. University of Cape Coast. December 16-17, 2009.</p> <p>Sue, R. W. (1994). <i>Essentials of nutrition and diet therapy</i> (6<sup>th</sup> ed.). St Louis: The C.V. Mosby Company.</p> <p>Wuest, D. A., &amp; Bucher, C. A. (2001). <i>Foundations for physical education and sport</i>. Boston: WCB/McGraw Hill.</p>
Instructional Resources	<p>6. Projector and screen</p> <p>7. Computer (Laptop) for playing back</p> <p>Cones, markers, stop watches, whistles, tape measures, Footballs, Volleyballs, Netballs and Handballs, etc.</p>

## MOTOR LEARNING AND ASSESSMENT IN HEALTH, PE AND SPORTS

### CONTEXT

Physical education helps students to develop the skills, knowledge, and competencies to live healthy and physically active lives at school and for the rest of their life. They learn ‘in, through, and about’ movement, gaining an understanding that movement is integral to human expression and can contribute to people’s pleasure and enhance their lives. This course therefore seeks to empower trainees to participate in physical activity and understand how this influences their own well-being and that of their prospective students. By demonstrating the benefits of an active life style, they encourage others to participate in sport, dance, exercise, recreation, and adventure pursuits. Physical education engages and energises students. It provides authentic contexts in which to learn. In this course students are challenged to develop their physical, professional and interpersonal skills. This course will enable students to experience movement and understand the role that it plays in their lives and that of their prospective students. Students can contribute to the development of physical education programmes and choose their own level of participation. The resulting learning environment challenges their thinking and helps to promote an interest in lifelong leisure and recreational pursuits.

<b>Course Title</b>	<b>Motor Learning and Assessment in Health, PE and Sports</b>						
<b>Course Code</b>	EBS 258	<b>Course Level</b>	200	<b>Credit Value:</b>	3	<b>Semester:</b>	1
<b>Pre-requisite</b>	<b>Foundations of Physical Education</b>						
<b>Course Delivery Modes</b>	Face -to - face <sup>1</sup> (x)	<b>Practical Activity</b> <sup>2</sup>	<b>Work-Based Learning</b> <sup>3</sup>	<b>Seminars</b> <sup>4</sup>	<b>Independent Study</b> <sup>5</sup>	<b>e-learning opportunities</b> <sup>6</sup>	<b>Practicum</b> <sup>7</sup>
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	The course is intended to give students relevant experience concerning the fundamental principles guiding human movement behaviour. This experience is then applied to understanding and designing motor tasks or motor skills for learners. It also emphasizes performance changes that are associated with motor learning. Again, the course introduces students to the various criteria for test selection, administration, and interpretation and use of test results through practical work. NTECF, NTS 2c, pg. 14, 3c, 3d, 3f, 3g, 3k, 3l pg. 15						
<b>Course Learning Outcomes</b> <sup>8</sup> :	<b>Outcomes:</b> On successful completion of the course, student			<b>Indicators:</b> 1.1 Explain the terms used in motor learning and assessment.			



<p><b>including INDICATORS for each learning outcome</b></p>	<p>teachers will be able to:</p> <p><b>CLO 1.</b> Demonstrate an understanding of the meaning of terms in motor learning and assessment.</p> <p><b>CLO 2.</b> Categorize motor skills into gross, fine, discrete, serial, continuous, open and closed based on the systems of classification.</p> <p><b>CLO 3.</b> Outline the characteristics of motor skill.</p> <p><b>CLO 4.</b> Measure motor performance and learning.</p> <p><b>CLO 5.</b> Explain the stages of motor learning skill and its application in P. E and sport.</p> <p><b>CLO 6.</b> Explain the factors that affect the acquisition of motor skill.</p> <p><b>CLO 7.</b> Describe how transfer of learning occurs and the conditions that affect learning.</p> <p><b>CLO 8.</b> Outline the procedures for measuring exercise and fitness in children, youth and adults.</p>			<p>2.1 Differentiate between motor skill and ability.</p> <p>2.2 Explain the characteristics of motor skills.</p> <p>2.3 Categorize motor skills based on the systems of classification.</p> <p>2.4 Explain the 2-step process for assessing learning.</p> <p>2.5 Describe the categories of motor performance measures</p> <p>2.6 Differentiate between reaction time, movement time and response time.</p> <p>2.7 Differentiate between the types of reaction time situations commonly used in motor learning and assessment research.</p> <p>2.8 Explain the three events that typically occur when reaction time is measured.</p> <p>2.9 Explain the types of error measures that occur during skill acquisition.</p> <p>3.0 Describe the major criteria for judging the appropriateness of a task and or performance measure for any learning situation.</p> <p>4.0 Explain the characteristic changes that occur as a person practices a skill.</p> <p>4.1 Describe the methods for assessing learning.</p> <p>4.2 Draw and interpret performance curves.</p> <p>4.3 Describe the stages of learning and its application in teaching and coaching.</p> <p>5.0 Explain the factors that affect acquisition of a skill.</p> <p>5.1 Differentiate between the types of transfer of learning.</p> <p>5.2 Explain why transfer of learning is important.</p> <p>6.0 Explain the steps for assessing physical activity and fitness in youth, adults, and children,</p>
<p><b>Course Content</b></p>	<p><b>Units</b></p>	<p><b>Topics:</b></p>	<p><b>Sub-topics (if any):</b></p>	<p><b>Teaching and learning activities to achieve learning outcomes</b></p>
	<p>1</p>	<p>Definiti</p>	<p>a. Motor Learning</p>	<p>Discussion</p>

	2	on and Meaning of Concepts in Motor Learning and Assessment	<ul style="list-style-type: none"> <li>b. Skill, Action</li> <li>c. Ability</li> <li>d. Movement</li> <li>e. Motor Control</li> <li>f. Motor Development</li> <li>g. Motor Behaviour</li> <li>h. Test</li> <li>i. Measurement</li> </ul>	<p>Discussion          Demonstration          Video Analysis</p>
	3	Classification of Motor Skills	<ul style="list-style-type: none"> <li>1. Precision of Movement             <ul style="list-style-type: none"> <li>a. Gross Motor Skills.</li> <li>b. Fine Motor Skills.</li> </ul> </li> <li>2. Defining the Beginning and End Points             <ul style="list-style-type: none"> <li>a. Discrete Motor</li> <li>b. Skills.</li> <li>c. Serial Motor Skills.</li> <li>d. Continuous Motor Skills.</li> </ul> </li> </ul>	<p>Discussion          Demonstration          Video Analysis          Practical</p>
	4		<ul style="list-style-type: none"> <li>3. Stability of the Environment             <ul style="list-style-type: none"> <li>a. Open Motor Skills</li> <li>b. Closed Motor Skills</li> </ul> </li> </ul>	<p>Discussion          Demonstration          Practical</p>
	5	Measurement of Motor Performance	<ul style="list-style-type: none"> <li>a. 2-Step Process of Assessing Learning</li> <li>b. Categories of Motor Performance Measure</li> <li>c. Reaction Time (RT)</li> <li>d. Movement Time (MT)</li> <li>e. Response Time (rt)</li> <li>f. Error Measures</li> </ul>	<p>Discussion</p>
	6			<p>Discussion          Video analysis          Observation</p>

		Measurement of Motor Learning	<ul style="list-style-type: none"> <li>g. Guidelines for Selecting Performance Measures</li> </ul>	Demonstration
	7		<ul style="list-style-type: none"> <li>a. Performance Changes that Occur During Learning</li> <li>b. Methods of Assessing Learning in Motor Skill Research <ul style="list-style-type: none"> <li>i. Practice Observation / Performance Curves</li> <li>ii. Retention Test</li> <li>iii. Transfer Test</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Discussion</li> <li>Demonstration</li> </ul>
	8	Stages of Motor Learning and Its Application in P. E and Coaching	<ul style="list-style-type: none"> <li>a. Stages of Learning <ul style="list-style-type: none"> <li>i. Cognitive Stage</li> <li>ii. Associative Stage</li> <li>iii. Autonomous Stage</li> </ul> </li> <li>b. Applying Motor Learning Stages in Teaching Students and Coaching Athletes</li> </ul>	<ul style="list-style-type: none"> <li>Discussion</li> <li>Video Analysis</li> <li>Observation</li> <li>Demonstration</li> <li>Practical</li> </ul>
		Factors Affecting Acquisition of Skill	<ul style="list-style-type: none"> <li>a. Guidance and Instruction <ul style="list-style-type: none"> <li>i. Visual Guidance</li> <li>ii. Verbal Guidance</li> <li>iii. Manual/Mechanical Guidance</li> </ul> </li> <li>b. Knowledge of Result (KR) (Feedback)</li> <li>c. Motivation – KR, Praise Competition</li> <li>d. Distribution of Practice</li> <li>e. Speed and Accuracy</li> <li>f. Whole and Part Learning</li> </ul>	

		Transfer of Learning/ Training  Measuring Physical Activity and Fitness Levels in Children, Youth and Adults	<ul style="list-style-type: none"> <li>a. Positive Transfer</li> <li>b. Negative Transfer</li> <li>c. Zero Transfer</li> <li>d. Conditions Affecting Transfer of Learning</li> </ul> <ul style="list-style-type: none"> <li>a. Measuring Physical Activity and Fitness Levels in Children</li> <li>b. Measuring Physical Activity and Fitness Levels in Youth</li> <li>c. Measuring Physical Activity and Fitness Levels in Adults</li> </ul>	
<b>Course Assessment Components<sup>9</sup>:          (Educative assessment of, for and as learning)</b>	<p><b>Component 1:</b> Formative Assessment (Quizzes)          Summary of Assessment Method          Quizzes: Class assessment would be based on quizzes. There would be two quizzes for the semester. Weighting: 20%.          Assesses learning outcome: CLO 1-4</p> <p><b>Component 2:</b> Formative Assessment (Individual assignments and group presentations)          Summary of Assessment Method          Class Participation, presentations and assignments: Students must attend all lectures and must be punctual too. They are supposed to participate actively in class discussions and assignments. Assessment will be based on class presentations and assignments.          Weighting: 20%          Assess learning outcomes: CLO 5 - 8  <b>Total: 40%</b></p> <p><b>Component 3:</b> Summative assessment (End of Semester Examinations)          Summary of Assessment methods: An end of semester that encapsulates course learning outcomes (CLOs) make use a combination of the formative assessment methods in component one and two.          Demonstration: Problem solving, critical thinking and feedback.</p>			

	Weighting: 60% Assesses learning outcomes: CLO 1-8
<b>Instructional Resources</b>	CD, Computers with internet connectivity, audio and video materials.
<b>Required Text (core)</b>	Reading List Schmidt, R. A., & Lee, T. D. (2005). <i>Motor control and learning: A behavioural emphasis</i> (4th ed). Champaign, IL: Human Kinetics. Schmidt, R. A., & Weisberg, C. A. (2004). <i>Motor learning and performance</i> (3rd ed.). Champaign, IL: Human Kinetics. Magil, R. A. (1993). <i>Motor learning: Concepts and application</i> (4th ed.). Oxford, England: WCB Brown & Benchmark.
<b>Additional Reading List</b> <sup>10</sup>	Karbo, J., Ogah, J. K., & Domfeh, C. (2005). <i>An introduction to physical education</i> (Centre for Continuing Education Module, University of Cape Coast). Cape Coast: University Printing Press. Kodzi, E. T., & Boateng, B. L. (2002). <i>Teaching and learning athletics for schools and colleges</i> . Cape Coast: KBB Books.

## GHANAIAN LANGUAGE AND CULTURE-ESSAY WRITING

### CONTEXT

Students have been exposed to the syntactic rules and principles governing the writing of our various Ghanaian Languages. This course therefore offers them the opportunity to put into practice the knowledge acquired and apply it to writing of the various types of essay. The student teacher will be taken through the rudiment of essay writing: the paragraph, the topic sentence, the major support sentence, minor support sentence and how these relate to the thesis statement.

<b>Course Title</b>	<b>Ghanaian Language and Culture-Essay Writing</b>						
<b>Course Code</b>	<b>EBS 233</b>	<b>Course Level 200</b>	<b>Credit value 3</b>	<b>Semester: 1</b>			
<b>Pre-requisite</b>	N/A						
<b>Course Delivery Modes</b>	<b>Face-to-face</b> √	<b>Practical Activity</b> √	<b>Work-based learning</b> √	<b>Seminars</b> √	<b>Independent Study</b> √	<b>e-learning opportunities</b> √	<b>Practicum</b>
<b>Course Description</b>	<p>This course aims to equip students with the skill of writing well-structured essays in the Ghanaian Language and determine structural accuracy of given written essays. Emphasis will be laid on the main components of the essay such as the Paragraph (topic, sentence, major and minor support sentences), introduction, body and the conclusion.</p> <p>It will also look at the types of essay, which include descriptive, narrative, expository, and argumentative/ debate as well as letter writing (formal/informal). The course is designed to meet the following NTS, NTECF, BSC, GLE expectations and requirements: NTECF, (NTS1a,b:12), (NTS 2c:13), (NTS 2f:13), (NTS 3e:14), (NTS3j:14), .</p>						
<b>Course learning outcome including INDICATORS for each learning</b>	On the successful completion of the course student teacher will be able to:						

<b>outcome</b>		
	<b>Outcomes</b>	<b>Indicators</b>
	<p><b>CLO 1</b> Outline and explain the components of an essay (NTS)</p> <p><b>CLO 2</b> write descriptive, narrative, argumentative/debate, expository essays</p> <p><b>CLO 3</b> write formal/informal letters</p> <p><b>CLO 4</b> use the different forms of essay and letter writing appropriately in the Ghanaian Language</p>	<ul style="list-style-type: none"> <li>• be aware of the significance of their culture</li> <li>• acquire a comparative knowledge of their customs and that of other people</li> <li>• realize that language and culture are linked</li> <li>• enrich their vocabulary and terminology</li> </ul>

<b>Course content</b>	<b>Units:</b>	<b>Topics:</b>	<b>Sub-topics:</b>	<b>Suggested Teaching Learning Activities</b>
		The Essay: planning and Organization  The Paragraph  Identifying parts of the essay  Types of Essays  Letter Writing	<ul style="list-style-type: none"> <li>• Generating a topic</li> <li>• Narrowing the topic</li> <li>• Writing the outline</li> <li>• Structure of a good paragraph</li> <li>• Characteristics of a good paragraph</li> </ul> Breakdowns	<ul style="list-style-type: none"> <li>• Discuss the topic</li> <li>• Use discussion to identify the ways of narrowing the topic</li> <li>• Discuss outlining of the topic</li> <li>• Demonstrate how paragraphing is structured</li> <li>• Ask students to write a</li> </ul>

			<ul style="list-style-type: none"> <li>• Controlling ideas</li> <li>• Topic sentence</li> <li>• Thesis statement in</li> <li>• The introductory paragraph</li>   <li>• The Body paragraph</li> <li>• The concluding paragraph</li>   <li>• Descriptive</li> <li>• Narrative</li> <li>• Expository</li> <li>• Argumentative</li> <li>• Formal Letters</li> </ul> <p>Semi-Formal/ Informal letters</p>	<p>paragraph</p> <ul style="list-style-type: none"> <li>• Identify the components/parts of a paragraph</li>   <li>• Assess the quality of a paragraph based on paragraph structure</li>   <li>• Identify features of a descriptive essay</li>   <li>• Identify features of a narrative essay</li>   <li>• Identify features of an Expository essay</li>   <li>• Identify features of an Argumentative essay</li>   <li>• Identify features of all types of letter writing.</li>   <li>• Try their hands at each essay type</li> </ul>
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Course Assessment Component	<p><b>Component 1: Formative Assessment (Quizzes)</b>  Summary of Assessment Method  Quizzes: Class assessment would be based on quizzes. There will be quizzed on outlining and paragraphing.  <b>Weighting 20%.</b>  Assesses learning outcome: CLO 1</p>
	<p><b>Component 2: Formative Assessment (Individual assignments and group presentations)</b>  Summary of Assessment Method  Class Participation: Students must attend all lectures and must be punctual too. They are supposed to participate actively in class discussions and assignments.  Assignment: The assignment will assess the problem solving skills and student teacher ability to identify the principles, techniques and processes in essay writing.  <b>Weighting 20%</b>  <b>Total Formative Assessment 40%</b>  Assess learning outcomes: CLO 2 and 3</p>
	<p><b>Component 3: Summative Assessment (End of Semester Examinations)</b>  Summary of Assessment methods: An end of semester that encapsulates course learning outcomes (CLOs) 1 – 4, and make use a combination of the formative assessment methods in component one and two.  Demonstration: Problem solving, critical thinking and feedback.  Weighting 60%  Assesses learning outcomes: CLO 1,2,3 and 4</p>
Instructional Resources	<ul style="list-style-type: none"> <li>12. Language Laboratory</li> <li>13. Sound recorder</li> <li>14. LCD projector</li> <li>15. Internet resources</li> </ul>
Required Text (core) Additional Reading Lists	<p>Adams, G. R. et al (1985): <i>Understanding Research Methods</i>, New York: Longman.  Amua-Sekyi, E. T. (1997). <i>Reading and Comprehension in Ghanaian Secondary Schools: A Review In Teaching English in Ghana</i>. A Handbook for Teachers, Kropp Dakubu M. E. (ed). Accra: SEDCO Enterprise.  Babbie, E. R. (1973): <i>Survey Research Methods</i>, CA Wadsworth, Belmont.  Bell, C. et al (1984): <i>Social Researching</i>. London: Routledge and Kegan Paul.</p>

Berry J. (ND): *The Pronunciation of Ewe*. Cambridge: Linguaphone House University of London.

Best J. et al (1989): *Research In Education*, 6<sup>th</sup> Edition, Englewood Cliffs: Prentice-Hall, Inc.

Busceni, S. V. (1999). *A Reader for Developing Writers*. U. S. A: McGraw Hill Companies.

Chesla, E. L. (2006). *Write Better Essays in Just 20 Minutes a Day* 2<sup>nd</sup> edition. New York: Learning Express, LLC.

Darwish, H., Mohammed, A. A., Enani, M. M., (nd). *A First Course In Essay Writing*. Cairo: Department of English, Faculty of Arts – Cairo University

Duigu, Gabi (2002). *Essay Writing For English Tests*. Australia: Academic English Press.

Gogovi, G. A. K., Gborsong, P. A. , Yankah, V. K., Essel, S. K., (nd). *Communicative Skills-Post Diploma in Basic Education Course Book for Continuing Education*, University of Cape Coast.

Olson, L. (2014). *On-Screen Proofreading: A HandBook for Editors of Academic and Scientific Articles*. Academia.

Opoku-Agyemang, N. A. J. (1998). *A Handbook for Writing Skills*. Ghana Universities Press.

Warriner, E. J. Whitten, E. M., Griffith, F. (1977). *English Grammar and Composition*. U. S. A: Harcourt Brace Jovanoch, Inc.

## PHONOLOGY OF THE GHANAIAN LANGUAGE

<b>Course Title</b>	<b>Phonology of the Ghanaian Language</b>						
<b>Course Code</b>	<b>EBS 261</b>	<b>Course Level 200</b>	<b>Credit value 3</b>	<b>Semester:</b>	<b>1</b>		
<b>Pre-requisite</b>	N/A						
<b>Course Delivery Modes</b>	<b>Face-to-face</b>  √	<b>Course Delivery Modes</b>	<b>Face-to-face</b>  √	<b>Course Delivery Modes</b>	<b>Face-to-face</b>  √	<b>Course Delivery Modes</b>	<b>Face-to-face</b>  √
<b>Course Description</b>	<p>This course is a continuation of EBS 120, and it will guide the students to identify the phonetic qualities of the speech sounds of the Ghanaian language. The course exposes students to the concepts of phonemes, allophones, free variants and phones. Students would also be exposed to identification of phonemes and allophones and the phonological rules that govern the combinations of the phonemes into syllables. The course will also guide students to identify the syllable structures of the language as well as some of the suprasegmental features such as pitch, tone, nasality, etc. The course will also guide the students to identify some of the assimilation processes. The course is designed to meet the following NTS, NTECF, BSC, GLE expectations and requirements: (NTS 1a, b: 12), (NTS 2c: 13), (NTS 2e: 13), (NTS 2f: 13), (NTS 3e: 14), (NTS 3j: 14), (NTECF 3: 29), and (NTECF 3: 25).</p>						
<b>Course learning outcome including INDICATORS for</b>	On successful completion of the course, the student teacher will be able to:						
	<b>Outcomes</b>			<b>Indicators</b>			

<b>each learning</b>	<p><b>CLO1</b> Identify the phonemes, allophones and free variants (if any) in the language (NTS 2c:13), (NTS 2e:13), (NTS 3e:14), (NTCF 6:20)</p> <p><b>CLO2</b> Identify basic phonological processes in the language including assimilation. (NTS 2c:13), (NTS 2e:13), (NTS 3c:14), (NTECF 3:20)</p> <p><b>CLO3</b> Know the structure of the syllable and the relationship between pitch and tone. (NTS 3j:14), NTS 1d:12), NTS 2d:13), NTS 3e:14), (NTCEF 3:29)</p> <p><b>CLO4</b> Show the difference between nasal sounds and nasalized sounds. (NTS 2b:13), (NTS 2f:13), (NTECF 3:32)</p>			<ul style="list-style-type: none"> <li>• Explain the meaning of a phoneme, an allophone, a phone and free variants</li>   <li>• Discuss the phonological processes like labialization, nasalization, palatalization, etc. with students.</li>   <li>• Explain the meaning of syllable, pitch and tone; and explain the structure of the syllable in the language, and the relationship between pitch and tone.</li> <li>• Explain the process of nasalization and the difference between nasal and nasalized sounds. .</li> </ul>
<b>Course content</b>	<b>Units:</b>	<b>Topics:</b>	<b>Sub-topics:</b>	<b>Suggested Teaching Learning Activities</b>
			Phonology	<ol style="list-style-type: none"> <li>1. The meaning and scope of Phonology</li> <li>2. Identification of: <ul style="list-style-type: none"> <li>• Phonemes</li> <li>• Phones</li> <li>• Allophones</li> <li>• Free variants</li> </ul> </li> <li>3. The syllable <ul style="list-style-type: none"> <li>• Definition of syllable</li> <li>• Identification of syllables</li> </ul> </li> <li>4. Suprasegmental features</li> </ol>

				<ul style="list-style-type: none"> <li>• Pitch</li> <li>• tone</li> </ul> <p>5. Phonological processes</p> <ul style="list-style-type: none"> <li>• Palatalization</li> <li>• Labialization</li> <li>• Labial-palatalization</li> <li>• Nasalization</li> </ul>
Course Assessment Component	<p><b>Component 1:</b> Formative Assessment (Quizzes)  Summary of Assessment Method  Quizzes: Class assessment would be based on quizzes. There would be two quizzes for the semester. Weighting 20%.  Assesses learning outcome: CLO 1</p>			
	<p><b>Component 2:</b> Formative Assessment (Individual assignments and group presentations)  Summary of Assessment Method  Class Participation: Students must attend all lectures and must be punctual too. They are supposed to participate actively in class discussions and assignments. Assessment will be based on class presentations and assignments. Weighting 20%  Total 40%  Assess learning outcomes: CLO 1 and 2</p>			
	<p><b>Component 3:</b> Summative assessment (End of Semester Examinations)  Summary of Assessment methods: An end of semester that encapsulates course learning outcomes (CLOs) 1 – 4, and make use a combination of the formative assessment methods in component one and two.  Demonstration: problem solving, critical thinking and feedback.  Weighting 60%  Assesses learning outcomes: CLO 1,2,3 and 4</p>			
Instructional Resources	<ol style="list-style-type: none"> <li>1. Internet resources</li> <li>2. Laptops</li> </ol> Books			
Required Text (Core)	Abercrombie, D. (1967). <i>Elements of General Phonetics</i> . London: Edinburgh University press Akpanglo-Nartey, J. N. (1989). <i>Introduction to phonetics for non-native speakers of English</i> . Tema: Sakumono Books			

	<p>Akpanglo-Nartey, J. N. &amp; Al-Arishi A. Y. (1989). <i>Introduction to phonology for non-native speakers of English</i>. Tema: Sakumono Books.</p> <p>Gussenhoven, C. &amp; Jacobs, H. (1998). <i>Understanding Phonology</i>. London: Arnold.</p> <p>Thakur, D. (1997). <i>Linguistic Simplified. (Morphology)</i>. Bharati Bhawan Publication &amp; Distribution. New Delhi</p> <p>Raimy, E. (2000). <i>The Phonology and Morphology for Reduplication. Studies in Generative</i>. New York: Mouton de Gruyter</p>
Additional Reading List	<p>Abaka, E. N. (2008). <i>Akan fɔnɔlɔgye</i>. Cape Coast: Old Thomas Printing Press.</p> <p>Adi, D. B. (2003). <i>Animosa sua (An outline of Dangme Grammar)</i>. Winneba:Teye-Ngua Computers</p> <p>Agyekum, K. (2010) <i>Akan Kasa Nhyehyeee</i>. Accra: Dwumfour. Ghana Ltd</p> <p>Andoh-Kumi, K. (1995). <i>Basic Akan Grammar</i>, Accra: Typed Co Ltd</p> <p>Bemile, S. K. (1984). <i>Dàgàrà Phoneme contrasts</i>. `Vol. 2. Saarbrueken: Africana Saraviensia</p> <p>Boadi, L. A. (2002). <i>Tense, Aspect and Mood in Akan</i>. In F. K. Ameka amd E.M.K Dakubu (Eds) 9-68</p> <p>Boadi, L. A. (2006). <i>The Participle in Akan. Studies in Languages of the Volta Basin</i>. Dakubu, Akanlig-Pare, Osam &amp; Saah (eds) 4, 36-51</p> <p>Bodomo, A. B. (2000). <i>Dagaare</i>. Muenchem: Lincom Europa.</p> <p>Bodomo, A. B. (1997). <i>The structure of Dagaare</i>. Stanford: CSLI Publications.</p> <p>Dolphyne, F. A. (1988). <i>The Akan (Twi-Fante) Language: Its Sound System and Tonal Structure</i>. Accra, Ghana Universities Press.</p> <p>Kropp-Dakubu, M. E. (2000). <i>Ga phonology</i>. Legon: Institute of African Studies.</p> <p>Ladefoged, P. (1971). <i>Preliminaries to linguistics phonetics</i>. Chicago: University of Chicago Press.</p> <p>Nyomi, C.K. (1977). <i>The Study of Ewe Word Structure and Usage for Beginners</i>. Cape Coast: University of Cape Coast</p>

## THE SOCIAL STRUCTURE OF GHANA

### CONTEXT

This programme is developed to train teachers who could teach students to appreciate and solve the emerging environmental and social issues that negatively affect our communities. These issues are grounded within the social, economic and political spheres. Many of these issues are as a result of certain misconception and attitudes that negatively affect our communities. This programme is, therefore, design to equip teacher-trainees with the appropriate knowledge, skills and values to enable them to assist learners to live well as responsible citizens who have adequate knowledge on the social, economic and political issues in Ghana.

Course Title	The Social Structure of Ghana						
Course Code		Course Level:	200	Credit Value:	3	Semester	2
Pre-requisite	Successful completion of the following courses: 1. Introduction to social studies 2. The social environment						
Course Delivery Modes	Face -to - face <sup>1</sup> *	Practical Activity <sup>2</sup>	Work-Based Learning <sup>3</sup>	Seminars <sup>4</sup>	Independent Study <sup>5</sup> *	e-learning opportunities <sup>6</sup>	Practicum <sup>7</sup>
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be	This course introduces students to the social structure of Ghana. The course specifically focuses on the concept of social structure; social change; transition from tradition to modernity; impact of colonialism; Demographic Changes: rural –urban migration; Family and functions, family in transition, new marriage markets: inheritance and intestate succession law: Social stratification: Contemporary social issues and problems: urbanization and urban life (NTECF, and NTS 2b, 2c, p. 13; 3e, 3i, 3k and 3o, p 14.						

addressed)				
Course Learning Outcomes <sup>8</sup> : including INDICATORS for each learning outcome	<b>Outcomes:</b> By the end of the course, the teacher-trainee will be able to: <ol style="list-style-type: none"> <li>1. help students understand the concept of social structure NTS 2c, p. 13; 3e, 3i, 3k and 3o, p 14.</li> <li>2. provide students with the opportunity to examine the various social institutions in Ghana NTS 2b, 2c, p. 13; 3e, 3i, 3k and 3o, p 14.</li> <li>3. help students understand the concept of inheritance and intestate succession law NTS 2b, 2c, p. 13; 3e, 3i, 3k and 3o, p 14.</li> <li>4. help students appreciate contemporary social issues and problems in Ghana NTS 2b, 2c, p. 13; 3e, 3i, 3k and 3o, p 14.</li> </ol>			<b>Indicators:</b> <ol style="list-style-type: none"> <li>1. explain the concept of social structure</li> <li>2. examine the various social institutions in Ghana</li> <li>3. explain the concept of inheritance; explain the types of inheritance in Ghana; discuss the various advantages associated with the types of inheritance</li> <li>4. discuss contemporary social issues in Ghana; find solutions for social problems in Ghana.</li> </ol>
Course Content	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	1.	The concept of social structure	<ol style="list-style-type: none"> <li>1. Meaning of social structure</li> <li>2. Levels of social structure</li> </ol>	<ul style="list-style-type: none"> <li>• Brainstorm with the teacher-trainees to explain the concept of social structure</li> <li>• Ask teacher-trainees to identify the levels of the social structure</li> </ul>
	2.	Family and functions	<ol style="list-style-type: none"> <li>1. Meaning of family</li> <li>2. Types of family</li> <li>3. Functions of family</li> </ol>	<ul style="list-style-type: none"> <li>• Brainstorm with the teacher-trainees to explain the family system</li> <li>• Guide teacher-trainees to identify the types of family</li> <li>• Use panel discussion to discuss the functions of family</li> </ul>
	3.	Marriage	<ol style="list-style-type: none"> <li>1. Meaning of marriage</li> <li>2. Types of marriage</li> </ol>	<ul style="list-style-type: none"> <li>• Use relevant knowledge of teacher-trainees to explain the concept of marriage</li> </ul>



			3. Importance of marriage	<ul style="list-style-type: none"> <li>• Use role-play to identify the types of marriage</li> <li>• Use small-group discussion to elicit the importance of marriage</li> </ul>
	4.	Inheritance	<ol style="list-style-type: none"> <li>1. Meaning of inheritance</li> <li>2. Types of inheritance</li> </ol>	<ul style="list-style-type: none"> <li>• Use relevant knowledge of teacher-trainees to explain 'inheritance'</li> <li>• Guide teacher-trainees to identify the types of inheritance</li> </ul>
	5.	Intestate succession law	<ol style="list-style-type: none"> <li>1. The interstate succession law of Ghana</li> </ol>	<ul style="list-style-type: none"> <li>• Use a resource person to explain the interstate succession law of Ghana to teacher-trainees</li> </ul>
	6.	Contemporary social issues and problems	<ol style="list-style-type: none"> <li>1. Social vices</li> <li>2. Environmental issues</li> </ol>	<ul style="list-style-type: none"> <li>• Use role play to elicit the social vices in society</li> <li>• Guide teacher-trainees to identify the environmental issues in society</li> </ul>
Course Assessment Components <sup>9</sup> : (Educative assessment of, for and as learning)	<b>Component 1:</b> Formative assessment Summary of Assessment Method: Quizzes and assignment Weighting: 20% Assesses Learning Outcomes: CLO 1, 2 and 3 (units 1 - 3)			
Component 2	<b>Component 2:</b> Formative assessment Summary of Assessment Method: Quizzes and assignment Weighting: 20% Assesses Learning Outcomes: CLO 4, 5 and 6 (units 4 - 6)			
Component 3	<b>Component 3:</b> Summative assessment Summary of Assessment Method: End of semester examination Weighting: 60%			

	Assesses Learning Outcomes: CLO 1, 2, 3,4, 5 and 6 (units 1 - 6)
Instructional Resources	Textbooks, teachers' guide, video clips, computer, resource persons from district/municipal/metropolitan assemblies.
Required Text (core)	Assimeng, M. (1981). Social structure of Ghana: A study in perspective of change. Ghana: Ghana publishing corporation.
Additional Reading List <sup>10</sup>	Nukunya, G.K. (2003). Tradition and change in Ghana: An introduction to sociology. Accra: Ghana Universities Press. Tataki, G. (2011). Development and social structure: The case of entrepreneur in Ghana. Ghana: Lambert Academy Publishing. Awinong, M.A. (2013). The understanding of family in Ghana as a challenge for contextual ecclesiology. London: LIT Verlag Munster

**PEACE BUILDING IN OUR COMMUNITIES**

<b>Course Title</b>	<b>Peace Building in Our Communities</b>						
<b>Course Code</b>	<b>EBS 263</b>	<b>Course Level:</b>	<b>200</b>	<b>Credit Value:</b>		<b>Semester</b>	1
<b>Pre-requisite</b>	Successful completion of the introduction to social studies course						
<b>Course Delivery Modes</b>	<b>Face -to - face</b> <sup>1</sup> *	<b>Practical Activity</b> <sup>2</sup> *	<b>Work-Based Learning</b> <sup>3</sup>	<b>Seminars</b> <sup>4</sup>	<b>Independent Study</b> <sup>5</sup> *	<b>e-learning opportunities</b> <sup>6</sup>	<b>Practicum</b> <sup>7</sup>
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	This course is designed to provide insights and understanding of concepts and practices of conflict management and peace building in our communities and their relevance for nation building. It is anticipated that the course will inspire individual institutions and organization to see the value of development which is conflict – sensitive by providing the needed knowledge and skills to promote peace building activities in communities. NTECF, and NTS 2b, 2c, p. 13; 3e, 3i, 3k and 3o, p 14.						
<b>Course Learning Outcomes</b> <sup>8</sup> : <b>including</b>	Outcomes:  By the end of the course, the students should be able to:			Indicators:			

<b>INDICATORS for each learning outcome</b>	1. Understand the basic concept and principles of conflict management and peace building. NTS 2b, 2c, p. 13; 3e, 3i, 3k and 3o, p 14.		1. Discuss the basic concept and principles of conflict management and peace building	
	2. Articulate strategies for strengthening the participation for peace building. NTS 2b, 2c, p. 13; 3e, 3i, 3k and 3o, p 14.		2. Articulate strategies for strengthening the participation for peace building	
	3. Demonstrate sound knowledge and skills required in conflict management. NTS 2b, 2c, p. 13; 3e, 3i, 3k and 3o, p 14.		3. Demonstrate sound knowledge and skills required in conflict management.	
<b>Course Content</b>	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	1.	UNDERSTANDING CONFLICT	<ul style="list-style-type: none"> <li>- Meaning and types of Conflicts</li> <li>- Conflict analyses</li> <li>- Stages of conflict</li> <li>- Response to conflict</li> </ul>	1. Teacher guides students to discuss the meaning, types, analyses, stages, and response to conflicts
	2.	MANAGING CONFLICT AND BUILDING PEACE	<ul style="list-style-type: none"> <li>- Right, roles, and responsibilities of citizens</li> <li>- Non- violent communication</li> <li>- Mediation</li> <li>- Peacemaking circle</li> </ul>	1. Teacher guides students to discuss the rights, roles, and responsibilities of citizens 2. Teacher guides students to discuss the various forms of managing conflicts
	3.	ORGANISATION	<ul style="list-style-type: none"> <li>- Partnership in</li> </ul>	Teacher guides students to discuss the

		AND BUILDING PEACE	<ul style="list-style-type: none"> <li>initiating peace</li> <li>- Risk assessment</li> <li>- Strategic planning</li> <li>- Monitoring and evaluating people's participation</li> </ul>	organization and method of building peace
	4.	STRATEGIES FOR SUSTAINING PEACE	<ul style="list-style-type: none"> <li>- Analysing conflict</li> <li>- Reconciliation</li> <li>- Communication and understanding</li> <li>- Vision for sustainable peace</li> </ul>	Teacher guides students to discuss the strategies for sustaining peace
	5.	CONFLICT MANAGEMENT AND PEACE BUILDING ACTIVITIES	<ul style="list-style-type: none"> <li>- Child friendly spaces</li> <li>- Violence in schools (protection, education)</li> <li>- Child led initiatives to address conflict and violence</li> <li>- Painting for peace (project)</li> </ul>	Teacher employs the demonstration method the help students understand conflict management and peace building activities
<b>Course Assessment Components<sup>9</sup> : (Educative assessment of,</b>	Component 1: Formative assessment Summary of Assessment Method: Quizzes - 10% Individual Assignment – 10%			

<b>for and as learning)</b>	Group Presentation - 20% <b>Weighting: 40%</b> Assesses Learning Outcomes: CLO 1, 2, 3, 4, and 5 (units 1 - 5)
<b>Component 2</b>	Component 2: Summative assessment Summary of Assessment Method: End of semester examination <b>Weighting: 60%</b> Assesses Learning Outcomes: CLO 1, 2, 3,4, 5 and 6 (units 1 - 6)
<b>Instructional Resources</b>	Textbook, TV set, Computer, internet facility
<b>Required Text (core)</b>	Roeder, P. G & Rothchild, D. (2005). <i>Sustainable Peace: power and Democracy after Civil Wars</i> : Ithaca, NY: Cornell University Press
<b>Additional Reading List <sup>10</sup></b>	Annan, K. (2004). "Learning the lessons of Peace-building". Address at the University of Ulster, Magee Campus, Londonderry, Northern Ireland. 18 October 2004. As delivered Autesserre, S. (2014). <i>Peaceland</i> . Cambridge: Cambridge university press Ayertey, I. (2002). <i>Mastering social studies for senior high school</i> (combined ed.). Accra: Excellent Publishing. Dadzie, E. T., & Adoma, A. R. (2004). <i>Environmental and social 2</i> . Accra: Ghnna Education Service. Ghna Education Service (GES]. (1987). <i>The social studies syllabus for JSS</i> . Accra: Curriculum Research and Development Division. Gyekye, K. (2008). <i>Social studies for West African senior school certificate</i> . Accra: Sankofa Publishing Company ltd.

## BIBLICAL STUDIES

### CONTEXT

Ghana is a pluralistic nation that allows people with different worldviews to co-exist and contribute towards nation building. There are many religions that are practiced in Ghana. However, the three major ones are Christianity, Islam and African Traditional Religion. The introduction of Biblical Studies in the basic schools will promote religious tolerance among people of other faiths. This will help to erase certain misconceptions that non-practitioners of Christianity will have about that religion, so as to create social harmony

Course Title	Biblical Studies						
Course Code	EBS 202	Course Level:	200	Credit Value:	3	Semester	1
Pre-requisite	Student-teachers must have exposure to the three major religions in Ghana, namely Christianity, Islam and African Traditional Religion either through study or practice.						
Course Delivery Modes	Face -to -face [x]	Practical Activity [x]	Work-Based Learning	Group Discussion [x]	Independent Study [x]	e-learning opportunities	Practicum
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	This course is designed to equip student-teachers with basic content knowledge in Biblical Studies. This will enable them to teach Biblical topics in the RME Syllabus effectively. It examines the major characteristics of religion and their socio-cultural implications. The approaches that would be used in the delivery of this course would prepare trainees to ensure the learning progress of all students by projecting gender roles and issues relating to equity and inclusivity. NTECF; NTS 2a, 2c, p13; and 3 j, p14						

<p>Course Learning Outcomes: including INDICATORS for each learning outcome</p>	<p>Outcomes</p> <p>7. Demonstrate knowledge and understanding of the history of Christianity in Ghana. (NTS 2a)</p> <p>8. Demonstrate knowledge and understanding of basic Christian doctrines. NTS 2c;</p> <p>9. Demonstrate knowledge and understanding of basic Christian religious practices. (NTS 2c)</p> <p>10. Demonstrate knowledge and understanding of basic Christian moral values and their influence on society. (NTS 2c)</p> <p>11. Demonstrate knowledge and understanding of the operations of Christian church groups and para-church groups and their influence on society. (NTS 2c;)</p> <p>12. develop the essential skills required for integrating ICT into the teaching of RME. (NTS 3j)</p>	<p>Indicators</p> <p>1.1 Explore the history of Christianity in Ghana and examine the role of the missionaries.</p> <p>2.1 Develop content and pedagogical knowledge in basic Christian doctrines.</p> <p>3.1 Develop content and pedagogical knowledge in basic Christian religious practices.</p> <p>4.1 Develop content and pedagogical knowledge in basic Christian moral values.</p> <p>4.2 Develop religious tolerance by encouraging group work in class.</p> <p>5.1 Develop knowledge and understanding of the organizational structure of Christian church groups.</p> <p>5.2</p> <p>6.1 Demonstrate integration of the use of ICT in the teaching of religion.</p>
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Course Content	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	1	History of Christianity	<ul style="list-style-type: none"> <li>• Origin of Christianity in Palestine</li> <li>• The spread of Christianity to the Roman Empire</li> <li>• External difficulties like persecutions by the state, and internal challenges like doctrinal and theological differences</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Discussion:</b> Tutor engages student-teachers in a discussion on the history of Christianity in Ghana. Encourage females to lead the discussion to deal with gender stereotypes.</li> <li>• <b>Tutorials:</b> Tutor leads students-teachers in tutorials to explain the origin of Christianity in Palestine</li> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and give them specific tasks. Encourage females to lead some of the groups to deal with gender stereotypes.</li> <li>• <b>Films and Documentary:</b> Tutor shows films and documentaries about the religious and social life of the Palestinians, to be followed by a discussion.</li> <li>• <b>Group Discussion:</b> Tutor puts learners in groups to discuss the origin and spread of Christianity. Encourage females to lead some of the groups.</li> </ul>
	2	Background to the Bible	<p>Old Testament Books</p> <ul style="list-style-type: none"> <li>• The Pentateuch</li> <li>• The Poetic Books</li> <li>• The Historical Books</li> <li>• Major Prophets</li> <li>• Minor Prophets</li> </ul> <p>New Testament Books</p> <ul style="list-style-type: none"> <li>• The Gospel</li> <li>• The Early Church</li> <li>• The Letters of Paul</li> <li>• Other Letters</li> <li>• A Prophetic Book</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Discussion:</b> Tutor engages student-teachers in a discussion on the books of the Bible. Encourage females to lead the discussion to deal with gender stereotypes</li> <li>• <b>Tutorials:</b> Tutor leads students-teachers in tutorials to explain the composition of the Bible.</li> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and give them specific tasks. Encourage females to lead the discussion to deal with gender stereotypes</li> <li>• <b>Brainstorming:</b> Student-teachers brainstorm on the differences between the Old Testament and the New Testament books.</li> </ul>

	3	Basic Christian Doctrine	<ul style="list-style-type: none"> <li>• Triune God</li> <li>• Jesus Christ</li> <li>• Virgin Birth</li> <li>• Holy Spirit</li> <li>• Crucifixion of Christ</li> <li>• Resurrection</li> <li>• Judgement Day</li> <li>• Salvation by grace</li> <li>• Holy Bible</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Discussion:</b> Tutor engages student-teachers in a discussion on the basic Christian doctrines. Encourage females to lead the discussion to deal with gender stereotypes</li> <li>• <b>Tutorials:</b> Tutor leads students-teachers in tutorials to explain the various Christian doctrines to students-teachers.</li> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and give them specific tasks. Encourage females to lead the discussion to deal with gender stereotypes</li> <li>• <b>Power Point Presentation:</b> Tutor gives Power Point presentation of the topics.</li> </ul>
	4	Basic Christian Practices	<ul style="list-style-type: none"> <li>• Worship</li> <li>• Prayer</li> <li>• Baptism</li> <li>• Confirmation</li> <li>• Eucharist</li> <li>• Festivals</li> <li>• Offering</li> <li>• Rites of Passage</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Discussion:</b> Tutor engages student-teachers in a discussion on the various Christian practices. Encourage females to lead the discussion to deal with gender stereotypes</li> <li>• <b>Tutorials:</b> Tutor leads students-teachers in tutorials to explain the meaning of the basic Christian practices.</li> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and gives them specific tasks to perform. Encourage females to lead the discussion to deal with gender stereotypes</li> <li>• <b>Brainstorming:</b> Student-teachers brainstorm on the differences among the various practices from one church group to the other.</li> </ul>

	5	Christian Values	<ul style="list-style-type: none"> <li>• Holiness</li> <li>• Hospitality</li> <li>• Peace</li> <li>• Love</li> <li>• Truthfulness</li> <li>• Loyalty</li> <li>• Self-control</li> <li>• Godliness</li> <li>• Commitment</li> <li>• Gratitude</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Discussion:</b> Tutor engages student-teachers in a discussion on the various Christian values. Encourage females to lead the discussion to deal with gender stereotypes</li> <li>• <b>Tutorials:</b> Tutor leads students-teachers in tutorials to explain the meaning of the Christian moral values.</li> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and gives them specific tasks to perform. Encourage females to lead the discussion to deal with gender stereotypes</li> <li>• <b>Brainstorming:</b> Student-teachers brainstorm on the values which are promoted in their religious groups.</li> </ul>
	6	Christian Church Groups/Denominations	<ul style="list-style-type: none"> <li>• Roman Catholic Church</li> <li>• Protestants</li> <li>• Pentecostals</li> <li>• Charismatics</li> <li>• African Initiated Churches</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Discussion:</b> Tutor engages student-teachers in a discussion on the various Christian church groups.</li> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and gives them specific tasks to perform. Encourage females to lead the discussion to deal with gender stereotypes</li> <li>• <b>Brainstorming:</b> Student-teachers brainstorm on the differences among the various denominations.</li> </ul>

	7	Church Organizations and Church Groups	<ul style="list-style-type: none"> <li>• Catholic Bishop’s Conference</li> <li>• Christian Council of Ghana</li> <li>• Ghana Pentecostals Council</li> <li>• Ghana Charismatic Bishops’ Conference</li> <li>• Bible Society of Ghana</li> <li>• Scripture Union, Ghana</li> <li>• Ghana Fellowship of Evangelical Students (GHAFES)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Discussion:</b> Tutor engages student-teachers in a discussion on the various Christian para-church groups.</li> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and gives them specific tasks to perform. Encourage females to lead the discussion to deal with gender stereotypes</li> <li>• <b>Brainstorming:</b> Student-teachers brainstorm on the leadership and operations of the various para-church groups.</li> </ul>
Course Assessment Components : (Educative assessment of, for and as learning)	<p><b>Component 1:</b> Formative Assessment (Individual and Group Presentation)  Summary of Assessment Method: Individual and Group Presentations to assess student-teachers’ Subject and Curriculum Knowledge (SCK)  Weighting: 30%  Assesses Learning Outcomes: CLO 1, CLO 2, CLO 3, CLO 4, CLO 5, CLO 6</p> <p><b>Component 2:</b> Formative Assessment (Quizzes and Assignments)  Summary of Assessment Method: Quizzes and Assignments to assess student-teachers’ Pedagogical Knowledge (PK)  Weighting: 30%  Assesses Learning Outcomes: CLO 1, CLO 2, CLO 3, CLO 4, CLO 5, CLO 6</p> <p><b>Component 3:</b> Summative Assessment (End of Semester Examination)  Summary of Assessment Method: End of Semester Examination is conducted to assess student-teachers’ learning outcomes in the development of critical thinking and creativity skills. Assessment will be based on student-teachers’ Subject and Curriculum Knowledge (SCK), Pedagogical Knowledge (PK) and Professional Practice (PP).  Weighting: 40%  Assesses Learning Outcomes: CLO 1, CLO 2, CLO 3, CLO 4, CLO 5, CLO 6</p>			

Instructional Resources	<ul style="list-style-type: none"> <li>• Textbooks</li> <li>• Journal articles</li> <li>• Resource Persons</li> <li>• Audio-visual materials</li> <li>• Power Point Presentation</li> </ul>
Required Text (core)	<p>Agbavor, A.K. W. (2002). Religious and Moral Education for schools and colleges. Accra: Lestek Limited.</p> <p>Asare-Danso, S. (2012). Religious Education in a democratic state: The Ghanaian experience. In P. Gotke &amp; J. Nissen (Eds.). Religious education between Formation, Knowledge and Control, (pp. 59-65). Aarhus: Aarhus University, Denmark.</p> <p>Asare-Danso, S., Annobil, C. N., Owusu, A. &amp; Agyemang, M. (2014). <i>Religious and Moral Education for Colleges of Education</i>. Kumasi: Jerusalem Press.</p> <p>Asare-Danso, S. &amp; Annobil, C. N. (2016). <i>Religious and Moral Education in Early Childhood Education</i>. Winneba: Institute for Educational Development and Extension, University of Education, Winneba.</p> <p>Awuah, G. &amp; Owusu, A. (2000). Study of content and methodology in Religious and Moral Education. Kumasi: UGC Publishing House.</p> <p>Ministry of Education (2008). Religious and Moral Education syllabus for primary school.</p> <p>Ministry of Education (2008). Religious and Moral Education syllabus for junior high school.</p>

## CURRICULUM STUDIES IN RELIGIOUS AND MORAL EDUCATION

### CONTEXT

Children receive religious and moral training from home before they are enrolled in the school. In the course of their training, they are faced with a lot of moral challenges, like sexual immorality, drug or substance abuse, disrespect for authority, violence, pornography and many others. The school is therefore expected to reinforce the kind of religious and moral training that pupils acquire from home. This will help in training young people to grow up to become responsible adults in future.

In the school, teachers are required to have good content knowledge and pedagogical skills to enable them to use RME to prepare learners for life. Regrettably, there has been a misconception that anybody at all, especially religious practitioners who do not have professional training can teach the subject. To erase this misconception, there has been the need for the development of a course in curriculum studies that will be used to adequately prepare student-teachers to help with its implementation.

Course Title	Curriculum Studies in Religious and Moral Education			
Course Code:	EBS 246	Course Level: 200	Credit Value: 3	Semester: 1
Pre-requisite	Student-teachers' have been introduced to the three main religions in Ghana. They have some knowledge of the syllabus that are used by teachers to teach.			
Course Delivery Modes	Face-to-face	Work-Based Learning [X]	Independent Study [X]	

<p>Course Description for significant learning (Indicate NTS, NTECF to be addressed)</p>	<p>This course is designed to introduce students to concepts and issues related to curriculum, syllabus and scheme of work in general, and that of Religious and Moral Education in particular. It also explores the overall structure and content of the pre-university curriculum. It examines curriculum development theories as well as principles underlying development, implementation and evaluation of the curriculum and its application to Religious and Moral Education. It further draws on students' previous knowledge to analyse these general principles critically. The approaches that would be used in the delivery of this course would prepare trainees to ensure the learning progress of all students by projecting gender roles and issues relating to equity and inclusivity. (NTS 2b, c; NTECF Pillar 1p. 21), (NTS 3d, g;; NTECF Pillar 3 p. 29), (NTS 1 b, c; NTECF Pillar 1p. 20).</p>	
<p>Course Learning Outcomes: including performance indicators for each learning outcome</p>	<p>Outcomes 1. Differentiate among the concepts “curriculum”, “Scheme of work” and “Syllabus” (NTS 2 b, c; NTECF Pillar 1p. 20)</p>	<p>Performance Indicators 1.1 Explain key concepts such a curriculum, scheme of work and syllabus. 1.2 Identify and document major differences among concepts</p>
	<p>2. Examine curriculum development theories and relate them to the teaching of Religious and Moral Education (NTS 1 b, c, d NTS 2 a, b, c; NTECF Pillar 1p. 20)</p>	<p>2.1 Explain the various curriculum development theories 2.2 Illustrate ways by which knowledge of theories of curriculum development relate to teaching RME</p>
	<p>3. Analyse the general principles underlying curriculum development, implementation and evaluation. (NTS 1 a, NTS 2 b, c; NTECF Pillar 1p. 20)</p>	<p>3.1 Explain curriculum development, implementation and evaluation. 3.2 demonstrate knowledge of the principles underlying curriculum development, implementation and evaluation. 3.3 Critically analyse the general principles related to curriculum development, implementation and evaluation.</p>
	<p>4. Apply the curriculum development principles and processes in appraising the Religious and Moral Education curriculum. (NTS 1 a, b; 2 b, c; NTECF Pillar 1 p. 20, 21)</p>	<p>4.1 Identify the curriculum development principles and processes. 4.2 Demonstrate ability to appraise and review the RME curriculum/syllabus.</p>

Course Content	Units	Topics:	Sub-topics (if any)	Teaching and learning activities to achieve learning outcomes
	1	The concept of Curriculum	<ul style="list-style-type: none"> <li>• Meaning and Scope</li> <li>• Types of Curriculum</li> <li>• Determinants of Curriculum</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and give them specific tasks</li> <li>• <b>K-W-L:</b> Tutor uses Know-Want to Know-Learn to introduce and close the lesson</li> <li>• <b>Discussion:</b> Tutor engages student-teachers in a discussion on the meaning and scope of curriculum</li> <li>• <b>Tutorials:</b> Tutor leads students-teachers in tutorials to explain key concepts as well as determinants of the curriculum.</li> </ul>
	2	The Pre-University Curriculum for Religious Education in Ghana	<ul style="list-style-type: none"> <li>• Historical Perspective</li> <li>• Titles and their Pedagogic Implications</li> </ul>	<ul style="list-style-type: none"> <li>• <b>K-W-L:</b> Tutor uses Know-Want to Know-Learn to introduce and close the lesson</li> <li>• <b>Tutorials:</b> Tutor leads students-teachers in tutorials to explain the historical issues related to the RME curriculum.</li> <li>• <b>Discussion:</b> Tutor engages student-teachers in a discussion on the various titles and their pedagogic implications</li> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and give them specific tasks</li> </ul>
	3	Approaches to Curriculum Design	<ul style="list-style-type: none"> <li>• Common Core</li> <li>• Integrated or Broad fields</li> <li>• Specialized</li> <li>• Subject</li> <li>• Activity or</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Discussion:</b> Tutor engages student-teachers in a discussion on the various types of curriculum design used when developing the curriculum</li> <li>• <b>Tutorials:</b> Tutor leads students-teachers in tutorials to explain the types or approaches</li> </ul>



			<p>Experience</p> <ul style="list-style-type: none"> <li>• Child-centred</li> </ul>	<p>to curriculum design</p> <ul style="list-style-type: none"> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and give them specific tasks</li> <li>• <b>Brainstorming:</b> Student-teachers brainstorm on the differences among the various approaches to curriculum design.</li> </ul>
	4	Models (or Theories) of Curriculum Development	<ul style="list-style-type: none"> <li>• Tyler's Model</li> <li>• Wheeler's Model</li> <li>• Taba's Model</li> <li>• Kerr's Model</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Brainstorming:</b> Student-teachers brainstorm on the differences among the various models for curriculum development</li> <li>• <b>Tutorials:</b> Tutor leads students-teachers in tutorials to explain the models of curriculum development</li> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and give them specific tasks</li> <li>• <b>Group presentations:</b> Students-teachers make a presentation in groups on tasked model for curriculum development.</li> </ul>
	5	Determination of Objectives	<ul style="list-style-type: none"> <li>• Categories of Objectives</li> <li>• Levels of Objectives</li> <li>• Characteristics of Instructional Objectives</li> <li>• Importance of Stating Instructional Objectives</li> </ul>	<ul style="list-style-type: none"> <li>• <b>K-W-L:</b> Tutor uses Know-Want to Know-Learn to introduce and close the lesson</li> <li>• <b>Tutorials:</b> Tutor leads students-teachers in tutorials to explain the categories, levels, characteristics and importance of instructional objectives.</li> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and give them specific tasks</li> <li>• <b>Reflective Writing:</b> Student-teachers reflect and formulate their own instructional</li> </ul>

				objectives based on the topics the tutor gives them.
	6	Selection of Content	<ul style="list-style-type: none"> <li>• Meaning and Components of Content</li> <li>• Criteria for Selecting Content</li> </ul>	<ul style="list-style-type: none"> <li>• <b>K-W-L:</b> Tutor uses Know-Want to Know-Learn to introduce and close the lesson</li> <li>• <b>Tutorials:</b> Tutor leads students-teachers in tutorials to explain the meaning of content as well as the criteria for selecting content.</li> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and give them specific tasks</li> <li>• <b>Reflective Writing:</b> Student-teachers reflect and select appropriate content based on the instructional objectives previously formulated.</li> </ul>
	7	Selection of Learning Experience	<ul style="list-style-type: none"> <li>• Meaning and Nature of Learning Experience</li> <li>• Criteria for Selecting Learning Experience</li> </ul>	<ul style="list-style-type: none"> <li>• <b>K-W-L:</b> Tutor uses Know-Want to Know-Learn to introduce and close the lesson</li> <li>• <b>Tutorials:</b> Tutor leads students-teachers in tutorials to explain the meaning of Learning experience.</li> <li>• <b>Brainstorming:</b> Student-teachers brainstorm on the possible criteria for selecting learning experience.</li> <li>• <b>Discussion:</b> Tutor engages student-teachers in a discussion on the various titles and their pedagogic implications</li> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and give them specific tasks</li> </ul>

	8	Curriculum Planning	<ul style="list-style-type: none"> <li>• The Need for Curriculum Planning</li> <li>• Stages of Curriculum Planning</li> </ul>	<ul style="list-style-type: none"> <li>• <b>K-W-L:</b> Tutor uses Know-Want to Know-Learn to introduce and close the lesson</li> <li>• <b>Tutorials:</b> Tutor leads students-teachers in tutorials to explain the need for curriculum planning</li> <li>• <b>Brainstorming:</b> Student-teachers brainstorm on the stages of curriculum planning using their own experiences.</li> <li>• <b>Reflective Writing:</b> Student-teachers reflect and document the various stages of curriculum planning.</li> <li>• <b>Discussion:</b> Tutor engages student-teachers in a discussion on the stages on curriculum planning.</li> </ul>
	9	Curriculum Implementation	<ul style="list-style-type: none"> <li>• Meaning of Curriculum Implementation</li> <li>• Stages of Curriculum Implementation</li> <li>• Models of Curriculum Implementation</li> <li>• Barriers to Curriculum Implementation</li> </ul>	<ul style="list-style-type: none"> <li>• <b>K-W-L:</b> Tutor uses Know-Want to Know-Learn to introduce and close the lesson</li> <li>• <b>Tutorials:</b> Tutor leads students-teachers in tutorials to explain the meaning of curriculum implementation</li> <li>• <b>Brainstorming:</b> Student-teachers brainstorm on the possible criteria for selecting learning experience.</li> <li>• <b>Discussion:</b> Tutor engages student-teachers in a discussion on the various titles and their pedagogic implications</li> <li>• <b>Group Tasks:</b> Tutor assigns student-teachers to groups and give them specific tasks</li> </ul>
	10	Curriculum	<ul style="list-style-type: none"> <li>• Meaning of Curriculum</li> </ul>	<ul style="list-style-type: none"> <li>• <b>K-W-L:</b> Tutor uses Know-Want to Know-</li> </ul>

		Evaluation	<p>Evaluation</p> <ul style="list-style-type: none"> <li>• Types of Evaluation <ul style="list-style-type: none"> <li>○ Formative</li> <li>○ Summative</li> </ul> </li> <li>• Evaluation of the RME Curriculum</li> </ul>	<p>Learn to introduce and close the lesson</p> <ul style="list-style-type: none"> <li>• <b>Tutorials:</b> Tutor leads students-teachers in tutorials to explain the meaning of curriculum evaluation and the types of evaluation.</li> <li>• <b>Brainstorming:</b> Student-teachers brainstorm on merits and demerits of the types of evaluation.</li> <li>• <b>Reflective Writing:</b> Student-teachers reflect and document the issues with the RME curriculum/syllabus based on previous discussions.</li> <li>• <b>Discussion:</b> Tutor engages student-teachers in a discussion on the components of the RME curriculum/syllabus in relation with the issues they identified.</li> </ul>
Courses Assessment: (Educative assessment of, for and as learning)	<p><b>Component 1:</b> Formative Assessment (Individual and Group Presentation)  Summary of Assessment Method: Individual and Group Presentations to assess student-teachers' Subject and Curriculum Knowledge (SCK)  Weighting: 30%  Assesses Learning Outcomes: CLO 1, CLO 2, CLO 3, CLO 4</p> <p><b>Component 2:</b> Formative Assessment (Quizzes and Assignments)  Summary of Assessment Method: Quizzes and Assignments to assess student-teachers' Pedagogical Knowledge (PK)  Weighting: 30%  Assesses Learning Outcomes: CLO 1, CLO 2, CLO 3, CLO 4</p> <p><b>Component 3:</b> Summative Assessment (End of Semester Examination)  Summary of Assessment Method: End of Semester Examination is conducted to assess student-teachers' learning</p>			

	<p>outcomes in the development of critical thinking and creativity skills. Assessment will be based on student-teachers' Subject and Curriculum Knowledge (SCK), Pedagogical Knowledge (PK) and Professional Practice (PP).            Weighting: 40%            Assesses Learning Outcomes: CLO 1, CLO 2, CLO 3, CLO 4</p>
Instructional Resources	<ul style="list-style-type: none"> <li>• Curriculum materials such as textbook, published books etc</li> <li>• Journal articles on the topic</li> <li>• Syllabus for RME</li> <li>• Audio, Visual and Audio-visual materials</li> <li>• Use of Curriculum experts as Resource Persons</li> </ul>
Required Text	<p>Anyagre, P. &amp; Dondieu, C. K. (2007). <i>A Guide to Educational Studies</i>. Vol. 3. Kumasi: Nana Addai Duah Publishing.</p> <p>Armstrong, D. G. (2007). <i>Curriculum today</i>. New Jersey: Merrill Prentice Hall.</p> <p>Asare-Danso, S. &amp; Kankam, B. (2006). <i>An Introduction to Curriculum Studies</i>. Cape Coast: Centre for Continuing Education, University of Cape Coast.</p> <p>Bishop, G. (1985). <i>Curriculum Development: A Textbook for Students</i>. London: Longman. <i>Journal of Curriculum Studies</i>.</p> <p>CRDD (2007). Religious and moral education syllabus for Basic schools. Accra: Ministry of Education.</p> <p>CRDD (2007). Religious and moral education syllabus for Junior high schools. Accra: Ministry of Education.</p> <p>Glatthorn, A., Boschee, F., &amp; Whitehead, B. M. (2006). <i>Curriculum leadership: Development and Implementation</i>. Thousand Oakes: Sage.</p> <p>Kelly, A. V. (2004). <i>Curriculum Alternative approaches, ongoing issues</i>. New Jersey: Merrill Prentice Hall.</p> <p>Marsh, C. J. &amp; Willis, G. (2003). <i>Curriculum: A comprehensive introduction</i>. Harper Collins: New York</p> <p>Taba, Hilda (1962). <i>Curriculum Development: Theory and Practice</i>. New York: Harcourt and Brace.</p> <p>Tamakloe, E. K. (1982). "Curriculum Evaluation, Implementation and Innovation", In Abosi and Brookman-Amissah (ed.), <i>Introduction to Education in Ghana</i>. Accra: Sedco Publishing Ltd.</p> <p>Tanner, D. &amp; Tanner, L. (2007). <i>Curriculum development: Theory and practice</i>. New Jersey: Pearson and Merrill Prentice Hall.</p> <p>Tyler, R. (1949). <i>The Basic Principles of Curriculum and Instruction</i>. Chicago: University of Chicago Press.</p> <p>Wheeler, D.K. (1967). <i>The Curriculum Process</i>. London: Unibooks.</p>



## CURRICULUM STUDIES IN THE PERFORMING ARTS

Course Title	Curriculum Studies in the Performing Arts						
Course Code	EBS 244	Course Level:	200	Credit Value:	3	Semester	1
Pre-requisite	Should have studied ‘The Performing Arts and Society’, ‘Nature of the Performing Arts’, ‘Sound and Movement Notation’ and ‘Creativity in the Performing Arts’						
Course Delivery Modes	Face -to -face <sup>1</sup> √	Practical Activity <sup>2</sup> √	Work-Based Learning <sup>3</sup> √	Seminars <sup>4</sup> √	Independent Study <sup>5</sup> √	e-learning opportunities <sup>6</sup> √	Practicum <sup>7</sup> √
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	<p>The course exposes students to the curriculum for teaching of the music, dance and drama (the components of the Performing Arts). It introduces students to the syllabi for Creative Arts, and music and dance as found in the lower and upper primary. It also gives students the opportunity to study and discuss textbooks and workbooks that have been developed for music and dance education. The approaches that would be used in the delivery of this course would prepare trainees to ensure the learning progress of all students by projecting gender roles and issues relating to equity and inclusivity.</p> <p>The course builds the pillars of Literacy, Skill, Knowledge and Content in addition to addressing the following among others: NTCEF: NTS 1b, 1e, 1f, 2a, b, c, d, 3a, c, d, e, 3g, i</p>						
Course Learning Outcomes <sup>8</sup> : including INDICATORS for each learning outcome	Outcomes			Indicators			
	<p>By the end of the course the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Explain the contents of the syllabi used in basic schools in Ghana (NTS 1b, 2c, d, e, 3e, k)</li> <li>2. Handle the textbooks and workbooks that have been provided for music and dance education in Ghana (NTS 1b, 2c, d, e, 3e, k).</li> </ol>			<ol style="list-style-type: none"> <li>1. Explain the various aspects of the Performing Arts sections of the Creative Arts syllabus</li> <li>2. Demonstrate appreciable competence in the ability to use the textbooks and workbooks</li> </ol>			

	3. Suggest ways for improving current curriculum materials for music and dance education (NTS 1b, 2c, d, e, 3e, h, k)			provided for the teaching of the Performing Arts  3. Critique the curricula materials for the teaching of the Performing Arts
Course Content	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	1	Curriculum studies – Syllabi	Syllabi - The lay-out and the contents of the Basic school syllabi for Music and Dance  Study of contents of textbooks and workbooks for music and dance education	Students make out curriculum studies materials for the performing arts education. Teacher leads students to study the contents of the syllabi for early childhood, primary and junior secondary school. Teacher discusses the layout of the syllabi, general aims and objectives, and the topics contained in the syllabi, paying attention to gender related issues.
	2	Curriculum studies – Textbooks and workbooks		Teacher introduces textbooks and workbooks recommended for performing arts education to students. Teacher discusses the contents of these books with students. Students compare the topics in the textbooks and workbooks with topics in the syllabi to see where they match. Students should take note of: a) Musical games b) Songs c) Rhythm (and rhythmic notation) d) Dance e) Dance drama f) Elements of music, dance and drama Students discuss how they would handle the contents of the syllabi in the classrooms at the various levels.
	3	Performance Studies	Ensemble and solo instrument study a) Ensemble work -	Students under teacher's guidance continue to study pieces in in their choral and instrumental ensembles as



			choral/instrumental b) Solo work – voice/atenteben/drums/ trumpet/ goje/ xylophone/ piano/etc.	well as pieces for solo work on their chosen music instruments.
Course Assessment Components <sup>9</sup> : (Educative assessment of, for and as learning)	<p>Assessment is made up of two major sections: Formative (40%) and Summative (60%).</p> <p>Component 1: Exercises, Quizzes and Assignments – 20%</p> <ol style="list-style-type: none"> <li>1. Students list curriculum materials for perform arts education.</li> <li>2. Students describe the layout and contents of the syllabi.</li> <li>3. Students mention textbooks and workbooks available for performing arts education.</li> <li>4. Students describe the contents of the Performing Arts syllabus</li> </ol> <p>(CLO 1,2 &amp;3)</p> <p>Component 2: Essay Assignments – 20%</p> <ol style="list-style-type: none"> <li>5. Write a critique of the Performing Arts Syllabus. The critique must consider the consistency between stated lesson outcomes, activities, content and evaluation (CLO 4)</li> </ol> <p>Component 3: Summative Assessment – 60%</p> <p>This will be made up of 20 objective questions (20 marks) and two essays (20 marks each) set by the teacher to cover all aspects of the CLO.</p>			
Instructional Resources	Laptops/computers, projector			
Required Text (core)	<p>Amuah, I.R., Adum-Attah, K. and Arthur, K. (2005). <i>Music and dance for colleges of education: Principles and methods</i>. Kumasi: Yaci Publications.</p> <p>CRDD (2006). <i>Curriculum for Kindergarten</i>. Accra: Ministry of Education, Ghana.</p> <p>CRDD (2000). <i>Music and Dance Syllabus for Primary Schools</i>. Accra: Ministry of Education, Ghana.</p> <p>CRDD (2008). <i>Music and Dance Syllabus for Junior High Schools</i>. Accra: Ministry of Education, Ghana.</p>			
Additional Reading List <sup>10</sup>	Addo, Akosua (1996). A Multimedia Analysis of Selected Ghanaian Children's Play Songs. <i>Bulletin of the Council for Research in Music Education</i> , 129 1-23, 1996.			

Addo, Akosua (2003). Using African Children's Literature in Elementary General Music Classes. *General Music Today*. Winter, 2003.

Addo, Akosua (2013). What's in a Singing Game? Exploring Children's Oral Literature: African traditional and Oral literature as Pedagogical Tools in Content Area Classrooms: Pre-K - 12, Information Age Publishing, 21-41, 2013.

Adum-Attah, K. and Arthur, K. (2000). *Teaching Music and dance in basic schools*. Accra: Teacher Education Division (GES).

## SOUND AND MOVEMENT NOTATION

### CONTEXT

The Ghanaian child is born into a society in which the Performing Arts play a very pivotal role. Apart from entertainment the arts serve as a social barometer measuring the pressures exerted by the everyday lived experiences of Ghanaians. The Performing Arts is the total expression of Ghana's culture. From infancy the Ghanaian child is exposed to music, dance and drama as social phenomena. A study of the Performing Arts will expose students to the uses and functions of the Performing Arts in the social, economic, political and religious lives of Ghanaians. It will enable students to explore the meanings of music, dance and drama in everyday life and their roles in the formation of social identities. Furthermore, it will help students to understand the influences of the Performing Arts on society as well as the influences of society in the changing trends of the Performing Arts. Apart from enabling students to develop a *feelingful reaction* to the Performing Arts it enhances and develops creativity among students and introduces them to career opportunities in music, dance and drama. The role of the Performing Arts in the development of the cognitive, emotional and psychomotor domains has received universal recognition. A study of Performing Arts by trainee students will equip them with skills, content and knowledge to impart same to pupils in the basic schools. It will also prepare them for careers and further studies in the Performing Arts.

Course Title	Sound and Movement Notation						
Course Code:	EBS 229	Course Level: 200	Credit Value: 3	Semester: 1			
Pre-requisite	Should have studied 'The Performing Arts and Society' as well as 'Nature of the Performing Arts'						
Course Delivery Modes	Face -to -face <sup>1</sup> √	Practical Activity <sup>2</sup> √	Work-Based Learning <sup>3</sup> √	Seminars <sup>4</sup> √	Independent Study <sup>5</sup> √	e-learning opportunities <sup>6</sup> √	Practicum <sup>7</sup> √
Course Description for significant learning	Studying music, like language, proceeds from the skills of listening, speaking (performing), reading and writing. In the previous music courses (listed under the 'pre-requisite'), students were predominantly exposed to the first two skills (listening/observing and performing). The goal of this course is to build up on these skills and highlight the next two higher level skills of learning to read and write music. It ensures continuity and consistency in the						

(indicate NTS, NTECF, BSC GLE to be addressed)	<p>acquisition of musical skills which are necessary for the teacher to be able to handle the teaching of music effectively. Specifically, this course equips students with the knowledge and skills for reading and writing simple melodies and movement patterns. This implies that the inextricable relationship between music and movement will be discussed. The course further equips students with skills to transpose melodies at given intervals above or below the original melodies. The course, in addition to covering the basics of standard music notation, also covers the basics of the Laban notational system and includes the notation of leg movements.</p> <p>The course builds the pillars of Literacy, Skill, Knowledge and Content in addition to addressing the following among others: <b>NTCEF, NTS 1b, 1e, 1f, 2b, c, d, 3a, e, 3i</b></p>	
<p>Course Learning Outcomes <sup>8</sup>: including INDICATORS for each learning outcome</p>	<p>Outcomes By the end of the course, the student will be able to:</p>	<p>Indicators</p>
	<p>7. Develop skills of discriminatory listening and observing (NTS 1b, 2c, d, e, 3e, k)</p>	<p>7. Demonstrate the ability to focus on particular aspects/elements of music and dance</p>
	<p>8. Read and sight sing or play simple melodies in given keys (NTS 1b, 2a, b, d)</p>	<p>8. Identify pitches in a notated melody and sing or play them out on a melodic/harmonic instrument</p>
	<p>9. Create and write simple melodies (NTS 1b, 2a, b, d)</p>	<p>9. Represent their own songs or simple familiar tunes in writing using standard music notation</p>
	<p>10. Describe the relationship between sound/music and movement (NTS 1b, 2a, b, d)</p>	<p>10. Explain (at least orally) the intricate relationship between sound/music and movement</p>
	<p>11. Interpret simple leg movement patterns (NTS 1b, 2a, b, d, 3a, c; NTCEF pages 16 and 21)</p>	<p>11. Demonstrate simple leg movement patterns written with Labanotation</p>
	<p>12. Create and write simple movement patterns using Labanotation (NTS 1b, 2a, b, d, 3a, c)</p>	<p>12. Show the ability to create and write simple movement patterns using Labanotation</p>

Course Content	Units	Topics:	Sub-topics (if any):	Teaching and learning activities to achieve learning outcomes
	1	Pitch and pitch notation	Construction of minor scales A, E, B, D, G	Students listen to and perform music in the minor mode. Teacher leads students to aurally differentiate between songs in the major and minor mode, paying attention to gender related issues. Teacher discusses the minor scale (melodic and harmonic) with students. Teacher guides students to construct the given minor scales.
	2	Intervals	Melodic and harmonic intervals	Teacher discusses melodic and harmonic intervals with students and guides to aurally and visually distinguish between intervals.
	3	Composition of melodies	Composition based on given keys – major and minor	Teacher leads students to create melodies in the given major and minor keys and notate the melodies in staff notation. Students perform the melodies they have composed to the class for listening and discussion.
	4	Sight reading/singing	Sight reading/singing of melodies in given keys	Teacher leads students to sight read/sing melodies in the major and minor keys they have treated.
	5	Sound/Music and movement	Sound and movement exploration	Teacher leads students to discuss the close connection between sound/music and movement and why they are often discussed together. (E.g. The production of sound on any musical instrument requires movement; or the local names of our indigenous ensembles do not differentiate between music and dance – the word ‘Kpanlogo’ refers to both the music and the sound etc. Also, music elicits movement. Even when people are not seen dancing, the parts of the brain responsible for movement is highly activated when music is being played.

	6	Movement notation	Composition of leg movement patterns	Teacher discusses with students the Labanotation symbols for directions and levels and leads students to create short and simple leg movement patterns using the directions and levels. Students work in groups to compose short movement patterns and present their works for performance, discussion and assessment.
	7	Performance Studies	Ensemble and solo instrument study a) Ensemble work - choral/instrumental b) Solo work – voice/atenteben/drums/trumpet/goje/xylophone/piano/etc.	Students under teacher’s guidance continue to study pieces in in their choral and instrumental ensembles as well as pieces for solo work on their chosen music instruments.
Course Assessment Components <sup>9</sup> : (Educative assessment of, for and as learning)	<p>Assessment is made up of two major sections: Formative (40%) and Summative (60%). The formative assessment is further divided into two components with equal weightings: Aural/Oral and Theory.</p> <p>Component 1: Aural/Oral (Exercises, Quizzes) – 20%</p> <ul style="list-style-type: none"> <li>e) Students tell whether a piece played to them is in the minor or major mode.</li> <li>f) Students to construct the given minor scales.</li> <li>g) Students identify intervals played to them.</li> <li>h) Students perform given intervals on music instruments.</li> </ul> <p>(CLO 1,2,3 &amp;4: NTS 1b, e, f, g, 2c, d, e)</p> <p>Component 2: Theory (Exercises, Quizzes, Assignments) – 20%</p> <ul style="list-style-type: none"> <li>e) Students present their creative works to the class for discussion and assessment (CLO 4 &amp; 5: NTS 2c, d, 3k)</li> <li>f) Students sight read/sing given melodies.</li> <li>g) Students compose movement patterns using Labanotation.</li> <li>h) Students perform their creative work.</li> </ul> <p>(CLO 5 &amp;6: NTS 1b, e, f, g, 2c, d, e)</p>			

	<p>Component 3: Summative Assessment – 60%</p> <p>This will be made up of 20 objective questions (20 marks) and two essays (20 marks each) set by the teacher to cover all aspects of the CLO.</p> <p>NTS 1b, 1e, 1f, 2c, 3e, 3i; NTCEF pages 16, 21, 38 and 41</p>
Instructional Resources	<p>Required reading text, pre-recorded audio/video of Ghanaian musical types (indigenous, popular and art/classical), Laptop or playing device, pictures/paintings of standard music notation forms and basic Labanotation forms. Musical instruments such as at1nt1b1n, drums, trumpet, goje, xylophone, piano, guitar</p>
Required Text (core)	<p>Adum-Attah, K. and Arthur K.K. (2001). <i>Music and Dance for the Classroom Teacher</i>. Accra: Curriculum Research and Development Division (GES).</p> <p>Amuah, I.R., Adum-Attah, K., and Arthur, K. (2005). <i>Music and dance for colleges of education: Principles and methods</i>. Kumasi: Yaci Publications.</p>
Additional Reading List <sup>10</sup>	<p>Agordoh, A.A.(1994). <i>Studies in African Music</i>. Accra: St. Anthony Press.</p> <p>Hutchinson, Ann (1970). <i>Labanotation</i>. New York: Theatre Arts Books.</p> <p>Manford, R., Wilson, C.B. and Flolu, J.E. (1993) <i>Music for Senior Secondary Schools</i>. Bombay: H. Gangaram &amp; Sons.</p> <p>Mensah, I.T. (1996). <i>Understanding Music</i>. Vol. 1, 2, 3 4. Otuam: Otuamic Publishers.</p>

### FIELD EXPERIENCE III

#### CONTEXT

During this semester, trainees will be taking a course in General Curriculum Studies. Therefore, for proper alignment of the College-based courses and their Field Experience, Supported teaching in schools in the second year needs to consider issues related to the curriculum of the JHS Level in their subject one teaching area.

Course Title	Field Experience III						
Course Code:	EBS 291	Course Level: 200		Credit Value: 3		Semester: 1	
Pre-requisite	EBS 191and EBS 192						
Course Delivery	Face-to-Face X	Practical Activity X	Work-based Learning X	Seminars X	Independent Study X	e-learning Opportunities X	Practicum X
Course Description for significant learning (indicate NTS, NTECF, BSCGLE to be assessed)	As the courses taken at the college level continue to expose students to critical aspects of what teachers need to know and be able to do concerning enactment of the curriculum. The school-based component of their training this year is aimed at giving trainees opportunities to continue to observe how JHS teachers teaching in their subject one area work with the curriculum. In addition, trainees will work with their mentors in deciding how to create a good and effective classroom environment and reflect and document their experience. Trainees should be encouraged to observe inherent gender stereotypes in some of the teaching learning resources and provide reflections on how to select and use basic curriculum materials in ways that will challenge gender stereotypes among pupils.. NTS 1 a, d, e, f &g. NTECF: Pillar 4.						
Course Learning Outcomes:	OUTCOMES By the end of semester, trainees will be able to:			INDICATORS			
including INDICATORS	CLO 1: Demonstrate the ability to develop and use a field experience activity log. NTS 1			1.1: Submit a detailed schedule of their school visits. 1.2: Produce, as part of the portfolio, a well-organized field			



for each learning outcome	a, d, e, f &g. NTECF: Pillar 4.			experience log that shows activities undertaken in the school and the support received from their mentors. This should also include reflections on their experience.
	CLO 2: Exhibit the ability to interact with students and teachers, including administrators of the school they are visiting. NTS 1 a, d, e, f &g. NTECF: Pillar 4.			2.1: Produce a handwritten journal that shows a record of dates, times and descriptions of their experiences with the different categories of people. 2.2: Describe aspects of the school culture such as the language of instruction in the classes visited
	CLO 3: Use a simple observation handout to observe lessons. NTS 1 a, d, e, f &g. NTECF: Pillar 4.			3.1: Submit a record of lessons observed using a simple observation guide. 3.2: Describe the physical environment of the class(es) visited such as the quality of posters, pictures or bulletin boards and what they depict. 3.3: Submit a summary description of the lessons observed highlighting how the teacher communicated with the class, strategies the teacher used to assess student understanding and resources, books, or materials used by the teacher. 3.3: Detail any special arrangements made by the teacher to support students with physical or learning challenges.
	CLO 4: Explain the key features of the school curriculum. NTS 1 a, d, e, f &g. NTECF: Pillar 4.			4.1: Submit a brief analysis of the Lower Primary curriculum focusing on the general objectives, mode of assessment, sequencing of the curriculum and curriculum alignment of the various subject 4.2: Describe the level of inclusiveness in the Lower Primary curriculum
Course Content	Units	Topics	Subtopics	Teaching & Learning Activities
	1	College level Orientation	Orientation by College tutor on the purpose of and activities to be undertaken during	Use of PowerPoint and other visual representations to give students orientations on the activities to be undertaken during their school visits

			this semester's STS	
	2	Lower Primary Curriculum	Essential features of the Lower Primary Curriculum	<p>2.1: Trainees work with their mentors to discuss and document the essential features of the Lower Primary curriculum including,</p> <p>2.1.1: the general objectives of the curriculum</p> <p>2.1.2: the mode of assessment prescribed</p> <p>2.1.3: how the curriculum of one level progresses into the other</p> <p>2.2: Trainees placed in a particular school work in groups with their mentors to look closely at how the content of the various Lower Primary subjects are aligned with each other</p> <p>2.3: Evaluate the level of inclusiveness of the Lower Primary curriculum</p>
	3	Observation of lessons	Lesson observation using a simple observation guide.	<p>3.1 Observe the physical environment of the class(es) visited and record the quality of posters, pictures or bulletin boards and what they depict.</p> <p>3.2: Observe lessons taught by the class teacher taking note of strategies/pedagogies used in teaching and reflect on them.</p> <p>3.3: Observe the nature of student-teacher and student-student interactions and reflect on it.</p> <p>3.4: Observe and assess student response patterns reflect on it</p> <p>3.5: Observe how the mentor reacts to responses from students of the opposite gender</p> <p>3.6: Observe strategies the mentor uses to assess student understanding and resources, books, or materials used by the teacher reflect on them.</p> <p>3.7: Observe and record any special arrangements made by the mentor to support students with physical or learning challenges.</p> <p>3.8: Observe both girls and boys responses to teaching and</p>

				learning in classroom enquiries 3.9: Audit, review and evaluate the learning resources in the classroom in terms of gender in textbooks, for example.
	4	Using models as thinking tools	Effective us of models in the classroom	4.1: Survey manipulatives available for use in the classroom 4.2: Observe and document how the mentor uses manipulative in their lessons 4.2: Assessing other manipulatives on the web, sharing and discussing their use with mentors and documenting activities developed from these with the mentor
	5	Using cooperative learning groups		5.1: Discuss and observe how to compose cooperative learning groups 5.2: Observe small groups at work 5.3: Develop guidelines for evaluating group work with mentors 5.4: Observe and evaluate group work using guidelines developed with mentors
	6	Finalization of trainees' portfolios		One week layover for trainees to finalize their portfolios for submission
	7	Trainee presentations		Provide opportunities for trainees to make presentations of their experiences. This should take the form of poster presentations
Course Assessment Components: (Educative assessment of, for and as learning)	<p>Component 1: Portfolio Assessment (CLO 1 to 4) Trainees will be expected to develop portfolios detailing their interactions with students, their mentors and other teachers, the head of school, trainees personal experiences, descriptions of lessons they observed, and any activities undertaken in the school (see CLO 1 to 4). These portfolios will be assessed using rubrics developed to assess the quality of presentation and detail provided. The portfolio assessment will constitute 60% of trainee's score</p> <p>Component 2: Evaluation by mentors (CLO 1 to 4) Trainees will be assigned who will work with them and guide them through out the period. These mentors will assess their mentees punctuality, regularity and attitudes to work, professionalism (including how they behave</p>			

	towards students with physical or learning challenges and interact with teachers and students) and willingness to support extra curricular activities of the school. The mentor's evaluation will constitute 40% of trainee's score
Instructional Resources	Projectors, Laptop Computers, Video Recordings and other Multimedia Resources, Files, Field Notebooks
Required Text (Core)	Manion L, Keith, R. B., Morrison, K., & Cohen, L. (2003). A guide to teaching practice. Available at <a href="http://www.books.google.com/books">http://www books.google.com/books</a> . Perry R 2004. Teaching practice for early childhood. A guide for students. Available at <a href="http://www.Routledge.com/catalogues/0418114838.pdf">http://www Routledge.com catalogues./0418114838.pdf</a> .
Additional Reading List	Kiggundu, E., & Nayimuli, S. 2009 Teaching practice: a make or break phase for student teachers <i>South African Journal of Education</i> , (29), 345-358. Menter I 1989. Teaching Stasis: Racism, sexism and school experience in initial teacher education. <i>British Journal of Sociology of Education</i> , 10:459-473.