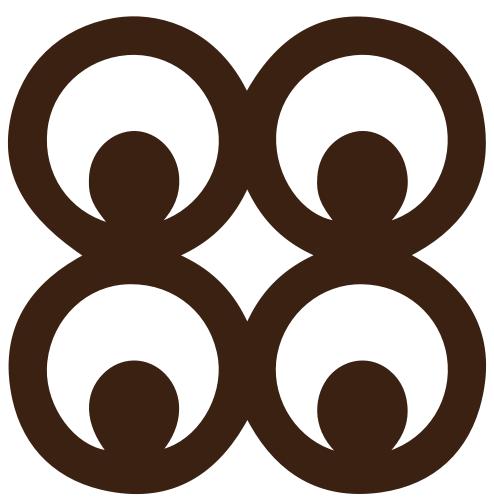
Tutor Professional Development Handbook: B.Ed. in Initial Teacher Education - ICT Year 3 Semester 2

HANDBOOK FOR TUTORS









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The Government of Ghana







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Foreword

In Ghana we have made great strides in transforming our teacher education system over the past few years. With each passing year the changes brought about through these reforms are maturing, embedding, and sustaining. Once the first B.Ed. graduates from Colleges of Education enter basic school classrooms from 2022 onwards, I am sure that as a nation, we will truly start to see the benefits of these reforms.

The success of national reforms depends on individual tutors and individual teachers working in classrooms across the country every day. The progress that we want to see will only be brought about through the consistent and regular application of the professional knowledge, professional practice and professional values and attitudes set out in the National Teachers' Standards (NTS).

This is where the Tutor Professional Development Handbooks, written by tutors and university lecturers, have an important role to play in helping tutors to reflect critically on their methods of teaching and learning.

Critical thinking and reflection is an area of weakness in parts of our current education system. Colleges of Education take secondary school graduates and, over four years of the B.Ed., shape them into professional teachers. A recent '21st Century Skills assessment' of a representative sample of Ghanaian Senior High School students found that 'critical thinking and problem solving' was the area where they performed least well. Lesson observation of these students' teachers in the same Senior High Schools found that 'employs a variety of instructional strategies that encourage student participation and critical thinking' was the area of the NTS where these teachers consistently scored lowest.

Teaching matters. If we want our Colleges of Education to develop teachers who can think critically and solve problems then tutors must model these expected behaviours in their lessons so that they create an environment where our teachers develop these competencies and, ultimately, use these competencies to develop critical thinking in our basic schools.

This latest set of Professional Development Handbooks, developed by four mentoring universities (University for Development Studies, University of Education, Winneba, University of Ghana and Kwame Nkrumah University of Science and Technology) and tutors from their affiliated Colleges of Education, are the third set of Professional Development Handbooks to be developed since Transforming Teaching, Education & Learning (T-TEL) became a Ghanaian not-for-profit organisation. I would like to take this opportunity to thank both the Ghana Tertiary Education Commission and Mastercard Foundation for making all this possible.

Robin Todd Executive Director, T-TEL February 2022 Age Levels/s: JHS

Name of Subject: ICT

Course: Technology Leadership and

Management

Topic: Introduction to *Technology Leadership and Management*

Tutor PD Session for Lesson 1 in the Course Manual

0 mins
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- Introduction to the two continuous assessment components to be undertaken in each subject during the semester (See Course Assessment Components at a Glance Appendix 2) NB in subjects where there are no assessment components in the course manuals examples will need to be provided for SL/HoD.
- 1.4 Discuss the course to be covered for the semester together with the lead. i.e., Technology Leadership and Management.
- 1.5 Read the introduction, course description and the purpose of the course manual and indicate how they are related to student teachers' relevant previous knowledge
- 1.6 Write the course learning outcomes (CLO) for lesson 1 and their corresponding course Learning indicators (CLI) for discussion.

E.g.,

CLO1: Demonstrate knowledge and understanding of the basic concepts of technology leadership and management and their impact on organisational effectiveness and efficiency. NTS: 1b, 1c, 1e, 1f, 1g, 2c, 2e / NTECF: Pillar 1, 2 & 3.

CLI 1: Explain the concepts of technology leadership in a written form e.g., examination, report, and quiz.

CLI 2: Explain the concepts of technology management in a written form e.g. examination, report, and quiz.

CLI 3: Distinguish between the concepts of technology leadership and technology management in a written form e.g. examination, report, and quiz.

1.7 In groups of two, discuss the two assessment components for the lesson, (Subject portfolio and subject project).

E.g.
Guiding student teachers to create e-portfolios to contain:

- a. Two (2) documents from project using Leadership and management concepts including IT strategic plans, project budgets, IT recruitment, selection & appraisal documents etc.
- b. Reflective notes of their observation during school visit relating to various technology leadership and management concepts.

b) Introduction to the session

- Review prior learning
- Reading and discussion of the introductory sections of the lesson up to and including learning outcomes and indicators
- Overview of content and identification of any distinctive aspects of the lesson/s,

NB The guidance for SL/HoD should identify and address any areas where tutors might require clarification on any aspect of the lesson.

NB SL/HoD should ask tutors to plan for their teaching as they go through the PD session NOTE: Revise the Course Assessment Components. That is:

Overall weighting of Subject project = 30% Weighting of individual parts of project out of 100

- Introduction 10
- Methodology 20
- Substantive section 40
- Conclusion 30

Overall weighting of subject portfolio = 30% Weighting of individual parts of portfolio out of 100 i(a). Each of the three (3) items selected by the student teacher is 30 % (90%).

- i(b) Presentation and organisation of portfolio 10%. OR
- ii(a). Each of the two (2) items selected by the student teacher is 30 % (60%).
- ii(b)Mid semester assessment 30%
- ii(c)Presentation and organisation of portfolio 10%

Introduction to the lesson

1.8 In groups of two, review the previous lessons learnt in Year 3 semester 1 PD sessions i.e., Web and Mobile Development in Education. E.g., Essential concepts and technologies of Web, and how you applied them in your teaching.

1.9

- i. Individually read the introductory sections of lesson 1 up to the learning outcomes and their corresponding indicators and then discuss in pairs (mixed pairs where applicable).
- E.g., Lesson description This lesson introduces the concepts needed and progresses to understand technology leadership and management.

Distinctive Aspects

1.10

i. Write down the distinctive aspects of the lesson.
 i.e., differences between leadership and management.

	ii. Identify areas that need further clarification on the lesson. E.g. Leadership as implied in ICT and other course areas. NB: Plan for your teaching as you go through the PD session. E.g., using Tutor-led discussion, self-prepared videos or from YouTube video to aid the lesson.	
2. Concept	Concept Development	15 mins
Development (New		
learning likely to	2.1 Using "radio reporting" technique discuss the	
arise in lesson/s):	concept of Leadership and Management.	
Identification and	ND Dedicates discharge in a factor of the con-	
discussion of new	NB: Radio reporting technique is a strategy where	
learning, potential barriers to learning	students (learners) contribute to a lesson in turns as if they are reporting for a radio station.	
for student teachers	they are reporting for a radio station.	
or students,	2.2 Write a possible barrier in learning the concept	
concepts or	above for discussion.	
pedagogy being		
introduced in the	E.g., Some student teachers might not have had	
lesson, which need	knowledge and understanding of how organisations	
to be explored with	are led.	
the SL/HoD NB The guidance for	2.3 Identify appropriate teaching strategies that can	
SL/HoD should set out	best explain the new concepts identified. i.e.,	
what they need to do	Technology Leadership and Management.	
to introduce and		
explain the issues/s	E.g., Flipped instruction: asking students to complete	
with tutors	the reading, preparation and introductory work at	
	home. Then, during class time, the students do	
	practice questions that they would traditionally do for homework.	
	Homework.	
3. Planning for	Planning for teaching, learning and assessment	
teaching, learning	activities	
and assessment		
activities for the	3.1 In groups of two watch the YouTube video below	
lesson/s	about leadership and management on any internet	
Reading and discussion of the	enabled device available. https://youtu.be/5S1EorW2ZcM?t=43	
teaching and	111(p3.// youtu.bc/ 231EOI WZZCIVI! (1-43	
learning activities	3.1.1 Discuss the content of the video in relation to	
Noting and	the teaching and learning activities in the course	
addressing areas	manual.	
where tutors may		
require clarification		

- Noting opportunities for making links to the Basic School Curriculum
- Noting opportunities for integrating: GESI responsiveness and ICT and 21st C skills
- Reading, discussion, and identification of continuous assessment opportunities in the lesson. Each lesson should include at least two opportunities to use continuous assessment to support student teacher learning
 - Resources:
- o links to the existing PD Themes, for example, action research, questioning and to other external reference material: literature, on web, Utube, physical resources, power point; how they should be used. Consideration needs to be given to local availability

- 3.2 Note areas that require clarification and/or contribution.
- E.g. Differences between leadership and management.
- 3.3 Discuss how the different activities would be carried out in both CoE and the Basic School Curriculum (BSC) to achieve the LOs and the LIs of the course manual for lesson 1.
- E.g., Explain the concepts of technology leadership in a written form (examination, report from STS and quiz).
- 3.4 Using think-pair-share, discuss how GESI issues related to the teaching and learning activities of the lesson would be addressed.
- E g., Equal representation of males and females of different ethnicity and mixed ability grouping as appropriate.
- 3.5 Read and discuss the assessment activities in the manual and identify areas in the lesson that can be used for assessment especially on NTEAP related activities.
- E.g., Assessment for learning: Group presentations on the two terms; leadership and management. Note

Instruct student -teachers to work in groups (in mixed ability, and pay attention to the composition of females and males during the group work). Remind student teachers to use either concept maps, simulations or multimedia for the presentations

- 3.6 List the needed inclusive resources for the teaching and learning of the concepts identified in both CoE and basic school curriculum.
- *E.g.,* Open Educational Resources (Including: YouTube, MOOCS-Udemy/coursera, khan academy, TESSA)

Make sure the resources are enough and appropriate to all learners (males, females and people with SEN).

	3.7 Brainstorm a plan that will be appropriate for the next lesson: Concepts of Business Models.	
4. Evaluation and review of session:	Evaluation and review of session.	15 mins
 Tutors need to identify critical friends to observe 	4.1 Identify any outstanding issues relating to the lesson for clarification.	
lessons and report at next session. Identifying and addressing any	4.2 Identify a critical friend to sit in your class during lesson and report on observation during next PD session.	
outstanding issues relating to the lesson/s for clarification	4.3 Read lesson 2 from the PD manual and find relevant materials for the next session.	

Age Levels/s: JHS Name of Subject: ICT

Course: Technology Leadership and

Management

Topic: Business Models

Tutor PD Session for Lesson 2 in the Course Manual

Focus: the bullet points provide the frame for what is to be done in the session. The SWL should use the bullets to guide what they write for the SL/HoD and tutors to do and say during each session. Each bullet needs to be addressed and specific reference should be made to the course manual/s.	Guidance Notes on Tutor Activity during the PD Session. What PD Session participants (Tutors) will do during each stage of the session.	Time in session
1. Introduction to the session	INTRODUCTION	20 mins
 Review prior learning Reading and discussion of the 	1.1 Write one (1) thing you learnt in your last PD session on lesson 1. I.e., introduction to leadership and management	
introductory sections of the lesson up to and including learning	1.1.1 Share what you have written with the whole group.	
 outcomes and indicators Overview of content and identification of any of a	1.2 Provide examples of how students will be prepared to employ the various strategies and skills during the basic school classroom work in STS Field Experience in year 4 semester 1.	
identification of any distinctive aspects of the lesson/s, NB The guidance for	1.3 The critical friend who observed lesson 1 to share his/her observation.	
SL/HoD should identify and address any areas where tutors might require clarification on	1.4 Individually read and identify the main features of the lesson from the course manual i.e., lesson description, learning outcomes and their corresponding indicators.	

	y aspect of the	E.g., Demonstrate knowledge and understanding of	
	SSON.	business modelling and the impact of ICT in educational service	
	3 SL/HoD should ask	modelling and the impact of ICT in educational service	
	tors to plan for their	deliver NTS: 1b, 1c, 1e, 1f, 1g, 2c, 2e /NTECF: Pillar 1, 2	
	aching as they go	& 3	
th	rough the PD session		
		Distinctive Aspect	
		1.5 Brainstorm and write the distinctive aspects of the	
		lessons.	
		E.g.,	
		i. Concepts of business models	
		ii. Components of a business	
		model Partners, Key resources,	
		Key activities etc.	
		1.5.1. Use think-pair-share to discuss your responses	
		taking into consideration GESI issues i.e., using	
		mixed pair where applicable to take leading roles.	
		Trinca pair where applicable to take leading roles.	
		1.5.2	
		i. Identify areas that need further clarification in the	
		lesson.	
		E.g., the brick and mortar/click and mortar	
		and online organisations and their impact on	
		education.	
		education.	
		ii. Plan for your teaching as you go through the PD	
		session.	
		E.g., Using Creative Approaches (such as, games,	
		,, , , , , , , , , , , , , , , , , , , ,	
		storytelling, role paly, songs and modelling) to aid the	
		lesson.	
2.	Concept	Concept Development	15 mins
	Development (New		
	learning likely to	2.1 List and share the major concepts in the lesson.	
	arise in lesson/s):		
•	Identification and	2.1.1 Using interactive talk for learning engage in a	
	discussion of new	discussion on the major concepts of the lesson.	
	learning, potential	i.e.	
	barriers to learning	i. Concepts of business models	
	for student teachers	ii. Components of a business model Partners, Key	
	or students,	resources, Key activities etc.	
	concepts or		
	pedagogy being	2.2 Write two (2) possible barriers in learning the	
	introduced in the	concept above for discussion.	
		· · · · · · · · · · · · · · · · · · ·	1

lesson, which need to be explored with the SL/HoD NB The guidance for SL/HoD should set out what they need to do to introduce and explain the issues/s with tutors E.g., a. breaking class into small diverse groups b. showing business model canvas of the various components of a business and c. discussing how the various component relate to each other. 3. Planning for teaching, learning and assessment activities for the lesson/s Reading and discussion of the teaching and learning activities Noting and addressing areas where tutors may require clarification Noting opportunities for making links to the Basic School Curriculum Noting opportunities for integrating: GESI responsiveness and ICT and 21*C skills e. A. Identify appropriate teaching strategies that can best explain the new concepts identified. S. J. Identify appropriate teaching strategies that can best explain the new concepts identified. S. J. Identify appropriate teaching strategies that can best explain the new concepts identified. S. J. Identify appropriate teaching strategies that can best explain the new concepts identified. S. J. Identify appropriate teaching strategies that can best explain the new concepts identified. S. J. Identify appropriate teaching strategies that can best explain the new concepts identified. S. J. Identify appropriate teaching strategies that can best explain the new concepts identified. S. J. Identify appropriate teaching strategies that can best explain the new concepts identified. S. J. Identify appropriate teaching strategies that can best explain the new concepts identified. S. J. Identify appropriate teaching strategies that can best explain the new concepts identified. S. J. Identify appropriate teaching strategies that can best explain the new concepts identified. S. J. Identify appropriate teaching strategies that can best explain the new concepts identified. S. J. Identify appropriate teaching strategies that can best explain the new concepts about servious components of the various components of
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the Basic School Curriculum Noting opportunities for integrating: GESI responsiveness and contribution. E.g., Emerging ICT business models and the sharing economy and education 3.2 Discuss in groups how the different activities would be carried out in both CoE and the Basic
Curriculum Noting opportunities for integrating: GESI responsiveness and E.g., Emerging ICT business models and the sharing economy and education 3.2 Discuss in groups how the different activities would be carried out in both CoE and the Basic
 Noting opportunities for integrating: GESI responsiveness and economy and education 3.2 Discuss in groups how the different activities would be carried out in both CoE and the Basic
for integrating: GESI responsiveness and 3.2 Discuss in groups how the different activities would be carried out in both CoE and the Basic
responsiveness and would be carried out in both CoE and the Basic
responsiveness and
ICT and 21st C skills School Curriculum (BSC) to achieve the LOs and
TOT GITG 22 COMMO
• Reading, discussion, the LIs of the course manual for lesson 2.
and identification of E.g., watch a video on how some business models
continuous work like the brick and mortar/click and mortar and
assessment online organisations and their impact on education
opportunities in the e.g. distance learning, MOOCs
lesson. Each lesson
should include at 3.3 Using think pair share, discuss how GESI issues
least two related to the teaching and learning activities of
opportunities to use the lesson would be addressed.
continuous
assessment to E g. A Male and a female taking turns in leading roles.
support student
teacher learning 3.4 Read and discuss the assessment activities in
Resources: the manual and identify areas in the lesson that

			1
	links to the existing PDThemes, for	can be used for assessment especially on NTEAP related activities.	
	example, action research, questioning and to other external reference material: literature, on	E.g. Student teachers write reflective notes on how ICTs affect the model that educational organisations use to serve their patrons. NB: Reflective notes can go into portfolio.	
	web, Utube, physical resources, power	3.4.1 Focus on the subject project and the subject portfolio of NTEAP document	
	point; how they should be used.	3.5 List the needed inclusive resources for the teaching and learning of the concepts identified in both CoE and basic school classroom. E.g., Tablet, YouTube Video, Projector, Laptop.	
		3.6 Think of a plan that will be appropriate for the next lesson. i.e., IT strategy and tactics.	
4.	Evaluation and review of session:	Evaluation and review of session	15 mins
•	Tutors need to identify critical friends to observe	4.1 identify any outstanding issues relating to the lesson for clarification	
	lessons and report at next session.	4.2 Identify a critical friend to sit in your class during lesson and report on observation during next PD	
•	Identifying and addressing any outstanding issues relating to the lesson/s for clarification	4.3 Read lesson 3 from the PD manual and find relevant materials for the next session.	

Age Levels/s: JHS Name of Subject: ICT

Course: Technology Leadership

and Management

Topic: IT strategy and Tactics

Tutor PD Session for Lesson 3 in the Course Manual

Focus: the bullet points provide the frame for what is to be done in the session. The SWL should use the bullets to guide what they write for the SL/HoD and tutors to do and say during each session. Each bullet needs to be addressed and specific reference should be made to the course manual/s.	Guidance Notes on Tutor Activity during the PD Session. What PD Session participants (Tutors) will do during each stage of the session.	Time in session
1. Introduction to the session	Introduction	20 mins
 Review prior learning Reading and discussion of the introductory sections of the lesson up to and including learning outcomes and indicators Overview of content and identification of any distinctive aspects of the lesson/s, NB The guidance for SL/HoD should identify and address any areas where tutors might 	 1.1 Write one (1) thing you learnt in your last PD session on Business Models 1.1.1 Share what you have written with the whole group. 1.2 Provide examples of how students will be prepared to employ the various strategies and skills during the basic school classroom work in STS Field Experience in year 4 semester 1. 1.3. The critical friend who observed the previous lesson on Business Models shares his/her observation. 1.4 Identify and read the main features of the lesson from the course manual i.e., lesson description, learning outcomes and their corresponding indicators individually. 	

require clarification on any aspect of the lesson. NB SL/HoD should ask tutors to plan for their teaching as they go through the PD session	E.g. Lesson description: In this lesson, student teachers will examine what ICT strategy and tactics are. It assumes students-teachers have no prior organisational strategy experience and introduces the concepts needed and progresses to support understanding. (National Teachers' Standard: 1a, 1b, 3b, 3c, 3e, 3d, 3n/NTECF: Pillar crosscutting issues; Core skills, Professional values and attitudes). Distinctive Aspects 1.5 Brainstorm and write down the distinctive aspects of the lessons. E.g. IT strategy versus corporate/business level strategy 1.5.1 In pairs discuss your responses, taking into consideration GESI issues e.g., pairing a male tutor with a female tutor. 1.5.2 i. Identify areas that need further clarification in the lesson. E.g., IT strategy and their impact. ii. Plan for your teaching as you go through the PD session. E.g. using tutor-led discussion, self-prepared videos or YouTube video to aid the lesson.	
2. Concept	Concept Development	15 mins
Development (New learning likely to arise in lesson/s): • Identification and	2.1 Write down and share with a colleague, the major concepts in the lesson.	
Identification and discussion of new learning, potential	E.g., Organisational Strategy for Education	
barriers to learning for student teachers or students,	2.1.1 Discuss together the major concepts that you have written and shared	
concepts or	2.2 Write two (2) possible barriers in learning the	
pedagogy being introduced in the	concept above for discussion. E.g., lack of technical support.	
lesson, which need	L.g., rack of teelimear support.	
to be explored with	2.3 Identify appropriate teaching strategies that can	
the SL/HoD	best explain the new concepts identified.	

		E.g., Flipped instruction: asking students to complete the reading, preparation and introductory work at home. Then, during class time, the students do practice questions that they would traditionally do for homework.	
3.	Planning for	Planning for teaching, learning and assessment	
	teaching, learning	activities	
	and assessment		
	activities for the	3.1 Individually read through the teaching and	
	lesson/s	learning activities outlined in the lesson from the	
•	Noting and	course manual for group discussion.	
	addressing areas		
	where tutors may	E.g., Tutor uses a short interactive lecture to introduce	
	require clarification	student-teachers to what an organisational strategy	
•	Noting	is.	
	opportunities for		
	making links to the	3.2 Watch a video on organisational strategy using the	
	Basic School	link below for group discussion.	
	Curriculum	https://youtu.be/O8noYhmLtVE	
•	Noting	3.2.1 Discuss your findings with the larger group.	
	opportunities for	3.2.1 Discuss your findings with the larger group.	
	integrating: GESI	3.3 Note areas that require clarification and/or	
	responsiveness and ICT and 21st C skills	contribution. <i>E.g. corporate level strategy</i> .	
•	Reading, discussion,	continuation Ligit corporate level of attagy.	
	and identification	3.4 Discuss in groups how the different activities	
	of continuous	would be carried out in both CoE and the Basic	
	assessment	School Curriculum (BSC) to achieve the LOs and	
	opportunities in the	the LIs of the course manual for the lesson.	
	lesson. Each lesson	E.g., Tutor tasks student teachers to write reflective	
	should include at	notes on the lesson treated.	
	least two		
	opportunities to	3.5 Using think-pair-share, discuss how GESI issues	
	use continuous	related to the teaching and learning activities of	
	assessment to	the lesson would be addressed.	
	support student	E.g., Males and females taking turns in leading roles	
	teacher learning	and Inclusivity.	
•	Resources:	2 C A all to tamp to information on a 24st and a selection of	
	links to the	3.6 Ask tutors to identify any 21 st century skills that	
	existing PD	can be developed or applied in the lesson and how	
	Themes, for	they can help student teachers to support basic	
	example, action	school leaners to develop these skills through STS activities.	
	research,	activities.	
	questioning and	E.g., The use of smartphones to prepare and present	
	to other	lessons.	
	external	icosons.	

	Γ	
reference	3.7 Read and discuss the assessment activities in the	
material:	manual and identify areas in the lesson that can be	
literature, on	used for assessment	
web, Utube,	especially on NTEAP related activities.	
physical		
resources,	E.g. Explain the concepts of strategic management in	
power point;	a written form using an appropriate software.	
how they		
should be used.	NB: Focus on the subject project and the subject	
Consideration	portfolio of NTEAP document.	
needs to be		
given to local	3.8 List the needed inclusive resources for the	
availability	teaching and learning of the concepts identified in	
a variability	both CoE and basic school classroom.	
	E.g., a YouTube Video, Coursera, Khan Academy,	
	Projector, Laptop (PC)	
	2.0 Prainctorm a plan that will be appropriate for the	
	3.9. Brainstorm a plan that will be appropriate for the next lesson:	
	next lesson:	
	IT dealer and leader H	
	IT strategy and tactics II	
4. Evaluation and	Evaluation and review of session	15 mins
review of session:	Evaluation and review of session	12 1111112
	4.4 Idoutify any autotandina	
Tutors need to	4.1 Identify any outstanding	
identify critical	issues relating to the lesson for clarification	
friends to observe		
lessons and report	4.2 Identify a critical friend to sit in your class during	
at next session.	lesson and report on observation during the next	
 Identifying and 	PD session.	
addressing any		
outstanding issues	4.3 Read lesson 4 from the PD manual and find	
relating to the	relevant materials for the next session.	
lesson/s for		
clarification		
1		1

Age Levels/s: JHS Name of Subject/s: ICT

Topic: IT strategy and tactics II

Tutor PD Session for Lesson 4 in the Course Manual

Focus: the bullet points provide the frame for what is to be done in the session. The SWL should use the bullets to guide what they write for the SL/HoD and tutors to do and say during each session. Each bullet needs to be addressed and specific reference should be made to the course manual/s.	Guidance Notes on Tutor Activity during the PD Session. What PD Session participants (Tutors) will do during each stage of the session.	Time in session
Introduction to the session	Introduction to the session	20 mins
Review prior	1.1 Review and reflect on the previous PD Session (Lesson 3) and how	
learningA critical friend to	useful it was on the lesson taught.	
share findings for a	aseran it was on the resson taught.	
short discussion	i.e., Relationship between IT Strategy and	
and lessons learned	corporate/business level strategy.	
 Reading and 		
discussion of the	1.2 Provide examples of how students will be	
introductory	prepared to employ the various strategies and skills during the basic school classroom work in STS	
sections of the lesson up to and	Field Experience in year 4 semester 1.	
including learning	Tiend Experience in year 4 Jennester 1.	
outcomes and	1.3 The critical friend who observed Lesson 3 should	
indicators	shares his/her experience and the impacts when	
 Overview of 	facilitating in class.	
content and	1.4 Pond the introduction lesson description and the	
identification of any	1.4 Read the introduction, lesson description and the purpose of lesson 4 in the course manual and	
distinctive aspects of the lesson/s,	indicate how they are related to student teachers'	
NB The guidance for	relevant previous knowledge.	
SL/HoD should identify	_	
and address any areas	Distinctive Aspect	
where tutors might		

require clarification on any aspect of the lesson. NB SL/HoD should ask tutors to plan for their teaching as they go through the PD session 2. Concept Development (New learning likely to arise in lesson/s): Identification and discussion of new learning, potential barriers to learning for student teachers or students, concepts or pedagogy being introduced in the lesson, which need to be explored with the SL/HoD NB The guidance for SL/HoD should set out what they need to do to introduce and explain the issues/s with tutors	 1.5 In pairs, identify the distinctive aspects of the lesson for discussion. E.g., SWOT analysis and choosing a strategy Concept Development 2.1 Using brainstorming, write at least two major concepts in the lesson and share with the whole group e.g., SWOT Analysis and choosing a strategy 2.2 Discuss the potential misconceptions and barriers with respect to the concepts listed above. E.g. There is no time for planning and analysis, there's too much work to do. 2.3 identify the most appropriate teaching strategies that can be employed to best explain the new concepts identified E.g., using multimedia (images/videos) to introduce student teachers to the SWOT Analysis 	15 mins
 3. Planning for teaching, learning and assessment activities for the lesson/s Reading and discussion of the teaching and learning activities Noting and addressing areas where tutors may require clarification Noting opportunities for making links to the 	Planning for teaching, learning and assessment activities 3.1 Watch a YouTube video on SWOT Analysis and discuss the teaching and learning activities in the course manuals that can be applied to the teaching of the topic E.g., https://youtu.be/JXXHqM6RzZQ 3.1.1 Identify areas in the video you watched that require further clarifications. 3.2 Discuss how these different activities from the video watched would be carried out in both CoE	40 mins

	Basic School	and basic school classroom to achieve the LOs and	
	Curriculum	the LIs of the course manual for lesson 4.	
•	Noting		
	opportunities for	Note: Ensure all instructions carried out are gender	
	integrating: GESI	responsive. Making both gender and people with SEN	
	responsiveness and	active in the discussion.	
	ICT and 21st C skills		
•	Reading, discussion,	3.3 Discuss how GESI issues like inclusivity related to	
	and identification of	the teaching and learning activities of the lesson	
	continuous	would be addressed.	
	assessment		
	opportunities in the	3.4 Identify any 21st century skills that can be	
	lesson. Each lesson	developed or applied in the lesson and how they	
	should include at	can help student teachers to support basic school	
	least two	leaners to develop these skills through STS	
	opportunities to use	activities.	
	continuous	e.g., The use of media elements to prepare and	
	assessment to	present lessons.	
	support student		
	teacher learning	3.5 Read the assessment activities in the course	
•	Resources:	manuals and identify areas in the lesson that can	
	links to the	be used for assessment especially on NTEAP	
	existing PD	related activities.	
	Themes, for		
	example, action	E.g., Develop a lesson to be presented which is gender	
	research,	friendly using CorelDraw, to teach the concepts:	
	questioning and	SWOT Analysis and choosing a strategy	
	to other external	ND. These sould be added to the in subject a satisfalia /	
	reference	NB: These could be added to their subject portfolio/	
	material	project	
		3.6. Identify other inclusive resources for teaching and	
		learning of the concepts in both CoE and basic	
		school classroom.	
		E.g., Projector, Adobe flash player, etc.	
		L.g., Frojector, Adobe jidsii pidyer, etc.	
		3.7 Ensure you have a concrete plan for teaching next	
		given topic.	
		S	
4.	Evaluation and	Evaluation and review of session:	15 mins
	review of session:		
•	Tutors should	4.1 Identify any outstanding issues relating to the	
	Identifying critical	lesson 4 to be addressed.	
	friends to observe		
	lessons and report	4.2 Remember to identify a critical friend who took	
	at next session.	part in the PD session to sit in your class during	
ь		<u>, </u>	<u> </u>

 Identifying and addressing any outstanding issues 	lesson and report on observation during next PD session.	
relating to the lesson/s for clarification	4.3. Read lesson 5 from the PD manual and find relevant materials for the next session.	

Name of Subject/s: ICT
Technology Leadership and Management

Topic:

Managing Human Resources, I

Tutor PD Session for Lesson 5 in the Course Manual

Focus: the bullet points provide the frame for what is to be done in the session. The SWL should use the bullets to guide what they write for the SL/HoD and tutors to do and say during each session. Each bullet needs to be addressed and specific reference should be made to the course manual/s.	Guidance Notes on Tutor Activity during the PD Session. What PD Session participants (Tutors) will do during each stage of the session.	Time in session
 Introduction to the session Review prior learning A critical friend to share findings for a short discussion and lessons learned Reading and discussion of the introductory sections of the lesson up to and including learning outcomes and indicators Overview of content and identification of any distinctive aspects of the lesson/s, 	 Start with an Ice Breaker: 1.1 Review on what was learnt in the previous PD session on lesson 4 i.e., the concepts of the strategic planning process 1.2 Provide examples of how students will be prepared to employ the various strategies and skills during the basic school classroom work in STS Field Experience in year 4 semester 1. 1.3. The critical friend who observed lesson 4 shares his/her observation. 1.4 Read and discuss the introduction, lesson description, the lesson outcomes and the purpose of lesson 5 in the course manual. 1.4.1 Indicate how they are related to student teachers' relevant previous knowledge. 	20 mins

NB The guidance for SL/HoD should identify and address any areas where tutors might require clarification on any aspect of the lesson. NB SL/HoD should ask tutors to plan for their teaching as they go through the PD session	Distinctive Aspect 1.5 Brainstorm the distinctive aspects of the lesson. i.e., Job analysis, recruitment. 1.5.1 Pair-share responses and identify any aspects of the lesson that need clarification.	
2. Concept Development (New learning likely to arise in lesson/s): Identification and discussion of new learning, potential barriers to learning for student teachers or students, concepts or pedagogy being introduced in the lesson, which need to be explored with the SL/HoD NB The guidance for SL/HoD should set out what they need to do to introduce and explain the issues/s with tutors	 2.1 Tutors identify at least two concepts in the lesson from the course manual. e.g., job analysis, recruitment. 2.1.1 Discuss the concepts in pairs making female tutors take leading roles wherever applicable. 2.2 Write at least one possible challenge in teaching the concept above for discussion. E.g., some student teachers might have some misconceptions of the recruitment process. 2.3 Identify the most appropriate teaching strategies that can be employed to best explain the new concepts identified. E.g., using questioning or PowerPoint presentation to teach Job Recruitment. 	20 mins
 3. Planning for teaching, learning and assessment activities for the lesson/s Reading and discussion of the teaching and learning activities Noting and addressing areas 	Planning for teaching, learning and assessment activities 3.1 Read the teaching and learning activities of lesson 5 from the course manual Refer to lesson 5 in the course manual. 3.1.1 Identify areas that require further clarifications. 3.2 Discuss how the different activities identified would be carried out in both CoE and basic school	35 mins

 support student teacher learning Tutors should be expected to have a plan for the next lesson for student teachers MB: Make sure you have a real plan for teaching the given topics with emphasis on equality and inclusivity of both genders. A. Evaluation and review of session: Tutors should Identifying critical friends to observe lessons and report at next session. Tutors should Identify a critical friend to sit in your lesson and report during next PD session. 4.3. Read lesson 6 from the PD manual and find its 	where tutors may require clarification Noting opportunities for making links to the Basic School Curriculum Noting opportunities for integrating: GESI responsiveness and ICT and 21st C skills Reading, discussion, and identification of continuous assessment opportunities in the lesson. Each lesson should include at least two opportunities to use continuous assessment to	curriculum to achieve the LOs and the LIs of the course manual for lesson. 3.3 List the needed inclusive resources for the teaching and learning of the concepts identified in both CoE and basic school classroom. E.g., Ms. PowerPoint, Laptop, smart phone 3.4 In pairs, identify any core and transferable skills, including 21st skills and the use of information technology tools can be developed or applied in the lesson and demonstrate how they can help student teachers to support basic school leaners to develop these skills through STS activities. E.g., student teachers to critically think and do a group presentation on Job analysis for projects to recap the lesson. 3.4 Read and discuss the assessment activities in the manual and identify areas in the lesson that can be used for assessment especially on NTEAP related activities.	
 review of session: Tutors should Identifying critical friends to observe lessons and report at next session. 4.1 Identify any outstanding issues relating to the lesson for clarification. 4.2 Identify a critical friend to sit in your lesson and report during next PD session. 	 teacher learning Tutors should be expected to have a plan for the next lesson for student 	computer laboratory for the STS school and develop a recruitment plan for same 3.4.1 Focus on the subject project and the subject portfolio of NTEAP document. NB: Make sure you have a real plan for teaching the given topics with emphasis on equality and inclusivity	
	 review of session: Tutors should Identifying critical friends to observe lessons and report 	4.1 Identify any outstanding issues relating to the lesson for clarification.4.2 Identify a critical friend to sit in your lesson and report during next PD session.	15 mins

Age Levels/s: JHS

Name of Subject: ICT Technology Leadership and Management

Topic:

Managing Human Resources II

Tutor PD Session for Lesson 6 in the Course Manual

po fra do Th the wh to ea bu ad ref	cus: the bullet ints provide the ime for what is to be ne in the session. e SWL should use e bullets to guide nat they write for e SL/HoD and tutors do and say during ch session. Each llet needs to be dressed and specific ference should be ade to the course anual/s.	Guidance Notes on Tutor Activity during the PD Session. What PD Session participants (Tutors) will do during each stage of the session.	Time in session
1.	Introduction to the session	Introduction to the session	20 mins
•	Review prior learning A critical friend to share findings for a short discussion and lessons learned Reading and discussion of the introductory sections of the lesson up to and including learning outcomes and indicators Overview of content and identification of any distinctive aspects of the lesson/s,	 1.1 Reflect and discuss the previous PD session (Lesson 5) and its benefits on the lessons thought i.e., Managing Human Resource 1.2 Provide examples of how students will be prepared to employ the various strategies and skills during the basic school classroom work in STS Field Experience in year 4 semester 1. 1.3 The critical friend who observed lesson 5 shares his/her observation and the impacts made during facilitating in class. 1.4 Read the introduction, lesson description and the purpose of lesson 6 in the course manual and indicate how they are related to student teachers' relevant previous knowledge. 	

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SL, an wh re- an les NE tu-	B The guidance for /HoD should identify and address any areas here tutors might quire clarification on by aspect of the soon. B SL/HoD should ask tors to plan for their aching as they go rough the PD session	E.g., Description: Student teachers will be introduced to the process of selecting the suitable candidate for employment and how to measure the performance of such an employee. NTS: 2c, 2e, 3a, 3b, 3e / NTECF: Pillar 1, 2 & 3 crosscutting issues; Core skills, Assessment, Professional values and attitude). Distinctive Aspects 1.5 Write one (1) distinctive aspect of the lesson for group discussion e.g., Selecting IT Staff Allow Room for Discussion	
2.	Concept	Concept Development	15 mins
	Development (New learning likely to arise in lesson/s): Identification and discussion of new learning, potential barriers to learning for student teachers NB The guidance for SL/HoD should set out what they need to do to introduce and explain the issues/s with tutors	 2.1 List and share the major concepts in the lesson. E.g., Selecting IT Staff 2.1.1 Discuss the major concepts listed in 2.1 above 2.2 Write two (2) possible challenges/ misconceptions in teaching the concept above for discussion. e.g., Student teachers might not have had knowledge and understanding of how organisations are led 2.3 Identify some appropriate teaching strategies that can be used to best explain the new concepts identified. E.g., Use interactive lecturette to explain the techniques (including interview, tests, etc) used for the selection of employees. 	
3.	Planning for	Planning for teaching, learning and assessment	40 mins
	teaching, learning	activities	
•	and assessment activities for the lesson/s Reading and discussion of the teaching and	3.1 In groups of two, watch a YouTube video with your mobile phones and discuss the teaching and learning activities in the course manuals. Watch a YouTube video on Selection	
	learning activities	https://youtu.be/OJNcYZvToGY	
•	Noting and addressing areas where tutors may require clarification	3.1.1 Identify areas in the video that require further clarifications.	

- Noting opportunities for integrating: GESI responsiveness and ICT and 21st C skills
- Resources:
- Tutors should be expected to have a plan for the next lesson for student teachers
- 3.2 Discuss how these different activities from the video watched would be carried out in both CoE and basic school classroom to achieve the LOs and the LIs of the course manual for lesson 7.
- E.g., Put student teachers in smaller groups to discuss which selection method will be suitable to select an IT employee.
- 3.3 Discuss how GESI issues related to the teaching and learning activities of the lesson would be addressed.
- e.g., Avoid biases in favour of or against specific gender, social class, religion and ethnicity.
- 3.4 Identify any 21st century skills that can be developed or applied in the lesson and how they can help student teachers to support basic school leaners to develop these skills through STS activities.
- E.g., Oral and written communication student teachers can be asked to write and present on how TLRs are selected during STS.
- 3.5 Read the assessment activities in the course manuals.
- E.g., Student teacher to do a group presentation on the types and effectiveness of staff selection processes.
- 3.5.1 Discuss the assessment activities taking note of areas that needs clarification.
- 3.6 Identify other inclusive resources for teaching and learning of the concepts in both CoE and basic school classroom.
- E.g., Smartphones, Laptops, Desktop computers, Tablets etc.
- 3.7 Make sure you have a concrete plan for teaching the given topics.

4. Evaluation and review of session:	Evaluation and review	15 mins
 Tutors should Identifying critical friends to observe 	4.1 Individually identify any outstanding issues relating to the lesson 7 to be addressed.	
lessons and report at next session.	NB: Give time for discussion if any.	
 Identifying and addressing any outstanding issues 	4.2. Identify a critical friend to observe the PD session and report on observation during next PD session.	
relating to the lesson/s for clarification	4.3. Read lesson 7 from the PD manual and find its relevant materials for the next session.	

Age Levels/s:

JHS

Name of Subject: ICT

Course: Technology Leadership

and Management

Topic: Managing Human

Resources III

Tutor PD Session for Lesson 7 in the Course Manual

Focus: the bullet points provide the frame for what is to be done in the session. The SWL should use the bullets to guide what they write for the SL/HoD and tutors to do and say during each session. Each bullet needs to be addressed and specific reference should be made to the course manual/s.	Guidance Notes on Tutor Activity during the PD Session. What PD Session participants (Tutors) will do during each stage of the session.	Time in session
 Introduction to the session Review prior learning A critical friend to share findings for a short discussion and lessons learned Reading and discussion of the introductory sections of the lesson up to and including learning outcomes and indicators Overview of content and identification of any distinctive 	 INTRODUCTION Begin the lesson with an Ice Breaker 1.1 Review and reflect on the previous PD Session lesson 6 and how useful it was on the lesson taught: Managing Human Resources II 1.2 Ask tutors to provide examples of how students will be prepared to employ the various strategies and skills during the basic school classroom work in STS Field Experience in year 4 semester 1. 1.3 The critical friend who observed lesson 6 should share his/her observations 1.4 Read and identify the main features of the lesson from the course manual (lesson description, learning outcomes and their corresponding indicators) individually. 	20 mins

aspects of the	E.g., Learning Outcome:	
lesson/s,	Apply the basic concepts of human resources	
NB The guidance for	management including recruitment selection and	
SL/HoD should identify	performance monitoring. NTS: 2c, 2e, 3a, 3b, 3e /	
and address any areas	NTECF: Pillar 1, 2 & 3	
where tutors might		
require clarification on	Distinctive Aspect	
any aspect of the		
lesson.	1.5 Brainstorm distinctive aspect of the lesson.	
NB SL/HoD should ask		
tutors to plan for their	E.g., Measuring Performance through Appraisal.	
teaching as they go		
through the PD session	1.6 Identify areas that need further clarification in the lesson.	
	E.g. Identifying valid Performance Appraisal tools	
2. Concept	Concept Development	15 mins
Development (New	2.1 In groups of at least two (2) list and shows the	
learning likely to	2.1 In groups of at least two (2) list and share the	
arise in lesson/s):	major concepts in the lesson.	
Identification and	2.1.1 Using concept mans angage in a discussion on	
discussion of new	2.1.1 Using concept maps engage in a discussion on	
learning, potential	the major concepts.	
barriers to learning		
for student	e.g., measuring performance of employees	
teachers or	2.2 M/vita any nassible havriers in learning the consent	
students, concepts	2.2 Write any possible barriers in learning the concept above for discussion.	
or pedagogy being	above for discussion.	
introduced in the	F. a. Compared and top above maight begin much lower	
lesson, which need	E.g., Some student teachers might have problems	
to be explored with	understanding or remembering language syntaxes.	
the SL/HoD		
NB The guidance for	2.3. Identify appropriate teaching strategies that can	
SL/HoD should set out	best explain the new concepts identified.	
what they need to do		
to introduce and	E.g., Mobile Learning (M-Learning) - breaks class into	
explain the issues/s	small diverse groups	
with tutors	to identify and discuss performance appraisal	
	methods using their mobile phones and how this is	
	relevant in the teaching and	
	learning process.	
3. Planning for	Planning for teaching, learning and assessment	40 mins
teaching, learning	activities	
and assessment		
activities for the		
lesson/s		

- Reading and discussion of the teaching and learning activities
- Noting and addressing areas where tutors may require clarification
- Noting opportunities for making links to the Basic School Curriculum
- Noting opportunities for integrating: GESI responsiveness and ICT and 21st C skills
- Reading, discussion, and identification of continuous assessment opportunities in the lesson. Each lesson should include at least two opportunities to use continuous assessment to support student teacher learning
- Resources:
 - o links to the existing PD Themes, for example, action research, questioning and to other external reference material: literature, on web, Utube, physical resources, power point; how they should be used.

- 3.1. Read through the teaching and learning activities outlined in lesson 7 of the course manual for group discussion.
- E.g., Tutor uses questioning to draw attention to the need to have an objective and effective means of measuring performance of employees.
- 3.1.1 Watch the video with the link below on Performance Appraisal.

https://youtu.be/2Ww4KEnUhec?t=14

- 3.1.2 Discuss the findings among themselves.
- 3.1.3 Note areas that require clarification and/or contribution.
- E.g., Interactive lecturette
- 3.2. In groups of at least two (2), discuss how the different activities would be carried out in both CoE and the Basic School Curriculum (BSC) to achieve the LOs and the LIs of the course manual for lesson 7.
- E.g., Student teacher to write reflective notes on the staff performance measurement used in their STS.
- 3.3. Using think-pair-share, discuss how GESI issues related to the teaching and learning activities of the lesson would be addressed.
- E g. Males, females and peoples with disabilities taking turns in leading roles.
- 3.4 Identify any 21st century skills that can be developed or applied in the lesson and how they can help student teachers to support basic school leaners to develop these skills through STS activities.
- E.g., The use of a mobile phones to watch a YouTube video on the internet.
- 3.5 Read and discuss the assessment activities in the manual and identify areas in the lesson that can be used for assessment especially on NTEAP related activities.

•	Consideration needs to be given to local availability o guidance on any power point presentations, TLM or other resources which need to be developed to support learning Tutors should be expected to have a plan for the next	 E.g., Ask the student teacher to prepare a TLR for a lesson. 3.6 List the needed inclusive resources for the teaching and learning of the concepts identified in both CoE and basic school classroom. E.g., Laptops, Desktop computers, Tablets etc. 3.7. Brainstorm on a plan that will be appropriate for the next lesson. 	
	lesson for student		
	teachers		
4.	Evaluation and review of session:	Evaluation and review of session	15 mins
•	Tutors should Identifying critical friends to observe lessons and report at next session. Identifying and addressing any outstanding issues relating to the lesson/s for clarification	 4.1 Ask tutors to individually identify any outstanding issues relating to the lesson 7 to be addressed. 4.2 Ask tutors to identify a critical friend to observe their lessons and report their observations during the next PD session. 4.3 Read lesson 8 from the PD manual and find its relevant materials for the next session. 	

Age Levels/s: JHS

Name of Subject/s: ICT

Topic: Managing Finance I

Tutor PD Session for Lesson 8 in the Course Manual

po fra do Th the wh SL, do ses ne an	cus: the bullet ints provide the ime for what is to be ne in the session. e SWL should use e bullets to guide nat they write for the /HoD and tutors to and say during each ssion. Each bullet eds to be addressed d specific reference ould be made to the urse manual/s.	Guidance Notes on Tutor Activity during the PD Session. What PD Session participants (Tutors) will do during each stage of the session.	Time in session
1.	Introduction to the	INTRODUCTION	20 mins
	session	Begin the lesson with an Ice Breaker	
•	Review prior		
	learning	1.1 Review and reflect on the previous PD Session on	
•	A critical friend to	Lesson 7 and how useful it was on the lesson	
	share findings for a	taught.	
	short discussion and	i.e. Managing Human Resource III	
	lessons learned	1.2 Provide examples of how students will be	
•	Reading and discussion of the	prepared to employ the various strategies and	
	introductory	skills during the basic school classroom work in STS	
	sections of the	Field Experience in year 4 semester 1.	
	lesson up to and	Tield Experience in year 1 semester 11	
	including learning	1.3 The critical friend who observed lesson 7 shares	
	outcomes and	his/her observations	
	indicators		
•	Overview of	1.4 Read and identify the main features of the lesson	
	content and	from the course manual (lesson description,	
	identification of any	learning outcomes and their corresponding	
	distinctive aspects	indicators) individually.	
	of the lesson/s,		
	The guidance for	E.g., L O:	
1 -	/HoD should identify	Apply the basic concepts of financial management	
	d address any areas	including costing and budgeting.	
	nere tutors might	NTS: 2c, 2e, 3a, 3b, 3e / NTECF: Pillar 1, 2 & 3	
rec	quire clarification on	crosscutting issues.	

	T	1
any aspect of the lesson.	L I: Perform a cost analysis of an IT project or operations and present a written report.	
NB SL/HoD should ask tutors to plan for their teaching as they go	Distinctive Aspect	
through the PD session	1.5 Brainstorm distinctive aspect of the lesson. E.g.,	
	i. Cost	
	ii. Total Cost of Ownership	
	1.6 Ask tutors to identify areas that need further clarification in the lesson. E.g., How to Cost an IT item.	
2. Concept Development (New	Concept Development	15 mins
learning likely to arise in lesson/s): Identification and	2.1 In groups of at least two (2) list and share the major concepts in lesson 8.	
discussion of new learning, potential barriers to learning	2.1.1 Using concept maps engage in a discussion on the major concepts of the lesson	
for student teachers or students, concepts or	E.g., Acquisition Cost, Operating Cost and Repair Cost.	
pedagogy being introduced in the lesson, which need	2.2 Write any possible barriers in learning the concept above for discussion.	
to be explored with the SL/HoD NB The guidance for	e.g., Student teacher may lack awareness of the benefits to be realized	
SL/HoD should set out what they need to do to introduce and	2.3 Identify appropriate teaching strategies that can best explain the new concepts identified.	
explain the issues/s with tutors	E.g., Concept Maps - breaks class into small diverse groups to identify and discuss how to use concept maps to facilitate teaching.	
3. Planning for teaching, learning and assessment	Planning for teaching, learning and assessment activities	40 mins
activities for the lesson/s Reading and discussion of the	3.1. Read through the teaching and learning activities outlined in lesson 8 of the course manual for group discussion. I.e.,	
teaching and learning activities	e.g., Guide student teacher to discuss the concepts of cost	

- Noting and addressing areas where tutors may require clarification
- Noting opportunities for making links to the Basic School Curriculum
- Noting opportunities for integrating: GESI responsiveness and ICT and 21st C skills
- Reading, discussion, and identification of continuous assessment opportunities in the lesson. Each lesson should include at least two opportunities to use continuous assessment to support student teacher learning
- Resources:
 - o links to the existing PD Themes, for example, action research, questioning and to other external reference material: literature, on web, Utube, physical resources, power point; how they should be used. Consideration needs to be given to local availability

3.1.1 Ask tutors to watch a video on total cost of ownership.

https://youtu.be/YKdcEOTA7Pk

- 3.1.2 Discuss the findings among themselves.
- 3.1.3 Note areas that require clarification and/or contribution.
- e.g., Costing an IT item.
- 3.2 In groups of at least two (2) where applicable, discuss how the different activities would be carried out in both CoE and the Basic School Curriculum (BSC) to achieve the LOs and the LIs of the course manual for lesson 8.
- E.g., Teacher performs a cost analysis of an IT project and student teacher/students emulate his/her teaching.
- 3.3 Using think-pair-share, discuss how GESI issues related to the teaching and learning activities of the lesson would be addressed.
- E g. Males, females and peoples with disabilities taking turns in leading roles.
- 3.4 Identify any 21st century skills that can be developed or applied in the lesson and how they can help student teachers to support basic school leaners to develop these skills through STS activities.
- E.g., The use of MS Excel to calculate a total cost of ownership for an IT item.
- 3.5 Read and discuss the assessment activities in the manual and identify areas in the lesson that can be used for assessment especially on NTEAP related activities.
- E.g., Ask the teacher/ student to prepare slides on how to cost an item using total cost of ownership.

• T	guidance on any power point presentations, TLM or other resources which need to be developed to support learning Futors should be expected to have a plan for the next esson for student reachers	 3.6 List the needed inclusive resources for the teaching and learning of the concepts identified in both CoE and basic school classroom. E.g., MS PowerPoint for preparing slides, CorelDraw for drawing concept maps. 3.7 Have a plan that will be appropriate for the next lesson. 	
4. F	valuation and	Evaluation and review session	15 mins
	Evaluation and review of session:	Evaluation and review session	15 mins
r		Evaluation and review session 4.1 Individually identify any outstanding issues	15 mins
• T	review of session: Futors should dentifying critical		15 mins
• T	review of session: Futors should dentifying critical friends to observe	4.1 Individually identify any outstanding issues relating to the lesson 8 to be addressed.	15 mins
r • T	review of session: Tutors should dentifying critical riends to observe essons and report	4.1 Individually identify any outstanding issues	15 mins
• T	review of session: Tutors should dentifying critical riends to observe essons and report at next session.	4.1 Individually identify any outstanding issues relating to the lesson 8 to be addressed. NB: Give time for discussion if any.	15 mins
r T III f III a	review of session: Tutors should dentifying critical riends to observe essons and report at next session. dentifying and	 4.1 Individually identify any outstanding issues relating to the lesson 8 to be addressed. NB: Give time for discussion if any. 4.2 Identify a critical friend to observe the PD session 	15 mins
r T III f III a	review of session: Tutors should dentifying critical riends to observe essons and report at next session.	4.1 Individually identify any outstanding issues relating to the lesson 8 to be addressed. NB: Give time for discussion if any.	15 mins
r T III f III aa III aa	review of session: Tutors should dentifying critical friends to observe essons and report at next session. dentifying and addressing any	 4.1 Individually identify any outstanding issues relating to the lesson 8 to be addressed. NB: Give time for discussion if any. 4.2 Identify a critical friend to observe the PD session 	15 mins
r III III III III III III III III III I	review of session: Tutors should dentifying critical riends to observe essons and report at next session. dentifying and addressing any outstanding issues	 4.1 Individually identify any outstanding issues relating to the lesson 8 to be addressed. NB: Give time for discussion if any. 4.2 Identify a critical friend to observe the PD session and report on observation during next PD session. 	15 mins
r Till f li a li r li li li li li li li li	review of session: Tutors should dentifying critical friends to observe essons and report at next session. dentifying and addressing any outstanding issues relating to the	 4.1 Individually identify any outstanding issues relating to the lesson 8 to be addressed. NB: Give time for discussion if any. 4.2 Identify a critical friend to observe the PD session and report on observation during next PD session. 4.3 Read lesson 9 from the PD manual and find its 	15 mins

Age Levels/s: JHS Name of Subject: ICT

Course: Technology Leadership and

Management

Topic: Managing Finance II

Tutor PD Session for Lesson 9 in the Course Manual

po fra do Th the to ea bu ad ref ma	cus: the bullet ints provide the me for what is to be ne in the session. e SWL should use e bullets to guide nat they write for e SL/HoD and tutors do and say during ch session. Each llet needs to be dressed and specific ference should be ade to the course anual/s.	Guidance Notes on Tutor Activity during the PD Session. What PD Session participants (Tutors) will do during each stage of the session.	Time in session
1.	Introduction to the	Introduction to the lesson	20 mins
	session	1.1 Deflect and discuss the provious DD Cossion	
•	Review prior learning	1.1 Reflect and discuss the previous PD Session (Lesson 8) and how it impacted your lesson	
	A critical friend to	delivery i.e., Managing Finance, I.	
	share findings for a	delivery het, wandging manee, i.	
	short discussion	1.2 Provide examples of how students will be	
	and lessons learned	prepared to employ the various strategies and	
•	Reading and	skills during the basic school classroom work in STS	
	discussion of the	Field Experience in year 4 semester 1.	
	introductory		
	sections of the	1.3 invite the critical friend who observed lesson 8 to	
	lesson up to and	share his/her observation and lessons learned.	
	including learning		
	outcomes and	1.4 Read the introduction, lesson description and the	
	indicators	purpose of lesson 9 in the course manual and	
•	Overview of	indicate how they are related to student teachers'	
	content and	relevant previous knowledge.	
	identification of any	Fa Lassan deservintion:	
	distinctive aspects	E.g., Lesson description:	
	of the lesson/s,	In this lesson, student teachers will learn how to	
	The guidance for	budget for ICT.	
SL/	/HoD should identify		

		T
and address any areas	Learning Outcome:	
where tutors might	Apply the basic concepts of financial management	
require clarification on	including costing and budgeting. NTS: 2c, 2e, 3a, 3b,	
any aspect of the	3e / NTECF: Pillar 1 - 3	
lesson.		
NB SL/HoD should ask	Learning Indicator:	
tutors to plan for their	Develop a budget for an IT project or operations and	
teaching as they go	present a written report.	
through the PD session		
	Distinctive Aspects	
	1.5. Brainstorm on the distinctive aspects of the	
	lesson for group discussion e.g., budget	
	preparation	
	preparation	
2. Concept	Concept Development	15 mins
Development (New		
learning likely to	2.1 List and share with an opposite gender, the major	
arise in lesson/s):	concepts in the lesson.	
Identification and	E.g., budget and budget preparation.	
discussion of new	g,g	
learning, potential	2.1.1 Discuss the major concepts identified from the	
barriers to learning	lesson.	
for student teachers	16333111	
or students,	2.2 Write two 2 possible challenges/ misconceptions	
concepts or	in teaching the concept above for discussion.	
pedagogy being	in teaching the concept above for discussion.	
introduced in the	E.g., some student teachers might not have had	
lesson, which need	knowledge and understanding of the earlier costing	
· ·	concepts.	
to be explored with	concepts.	
the SL/HoD	2.2 Identify some appropriate teaching strategies that	
NB The guidance for	2.3 Identify some appropriate teaching strategies that	
SL/HoD should set out	can be used to best explain the new concepts identified	
what they need to do	identified	
to introduce and	Fa Student to achors would watch video Ve The	
explain the issues/s	E.g., Student teachers would watch videos on YouTube	
with tutors	about budget preparation.	
3. Planning for	Planning for teaching, learning and assessment	40 mins
teaching, learning	activities	
and assessment	delivines	
activities for the	3.1 In groups of two, watch the YouTube video below	
lesson/s	on any internet enabled device available to	
•	support and discuss the teaching and learning	
 Reading and discussion of the 	activities in the course manual.	
	activities in the course illuliud.	
teaching and	https://woutu.bo/KELIJaTkad\/02+_16	
learning activities	https://youtu.be/K5UlgTkadV0?t=16	

- Noting opportunities for making links to the Basic School Curriculum
- Noting opportunities for integrating: GESI responsiveness and ICT and 21st C skills
- Reading, discussion, and identification of continuous assessment opportunities in the lesson. Each lesson should include at least two opportunities to use continuous assessment to support student teacher learning
- Tutors should be expected to have a plan for the next lesson for student teachers

- 3.1.1 Identify areas in the video that require further clarifications.
- 3.2 Discuss how these different activities would be carried out in both CoE and basic school classroom to achieve the LOs and the LIs of the course manual for lesson 9.
- E.g., put student teachers in smaller groups to create a social media group for themselves (e.g., Facebook, WhatsApp or Telegram) to enable them interact outside class using their mobile or any other suitable device.
- 3.3 Discuss how GESI issues related to the teaching and learning activities of the lesson would be addressed.
- E.g., Asking females to lead in some of the groups and making resources available for people with disabilities.
- 3.4 Identify any 21st century skills that can be developed or applied in the lesson and how they can help student teachers to support basic school leaners to develop these skills through STS activities.
- E.g., Using a spreadsheet software in preparing a sample budget for an Information Technology project
- 3.5 Read the assessment activities in the course manual.
- E.g., Mini Project Student teachers to develop a project budget for an ICT resource needed in their STS school
- 3.5.1 Discuss the assessment activities taking note of areas that needs clarification.
- 3.6 Identify other inclusive resources for teaching and learning of the concepts in both CoE and basic school classroom.
- E.g., Open Educational Resources (Including: YouTube, MOOCS-Udemy/coursera, khan academy, TESSA) Productivity tools.

		Smartphones Laptops N.B. Make sure you have a concrete plan for teaching the given topics.	
4.	Evaluation and	Evaluation and review	15 mins
	review of session:		
•	Tutors should	4.1 Identify any outstanding issues relating to the	
	Identifying critical	lesson 9 to be addressed.	
	friends to observe		
	lessons and report	NB: Give time for discussion if any.	
	at next session.		
•	Identifying and	4.2 Identify a critical friend to observe the PD session	
	addressing any	and report on observation during the next PD	
	outstanding issues	session.	
	relating to the		
	lesson/s for	4.3 Read lesson 10 from the PD manual and find its	
	clarification	relevant materials for the next session.	

Age Levels/s: JHS Name of Subject/s: ICT

Technology Leadership and Management

Topic:

Managing Procurement

Tutor PD Session for Lesson 10 in the Course Manual

po fra do Th the wh SL, do ses ne an she	cus: the bullet ints provide the ime for what is to be ne in the session. e SWL should use e bullets to guide nat they write for the /HoD and tutors to and say during each ssion. Each bullet eds to be addressed d specific reference ould be made to the urse manual/s.	Guidance Notes on Tutor Activity during the PD Session. What PD Session participants (Tutors) will do during each stage of the session.	Time in session
1.	Introduction to the	INTRODUCTION	20 mins
	session	Begin the lesson with an Ice Breaker	
•	Review prior		
	learning	1.1 Review and reflect on the previous PD Session on	
•	A critical friend to	Lesson 9 of the course manual and how useful it	
	share findings for a	was on lessons taught.	
	short discussion	knowledge and understanding of	
	and lessons learned	preparation of budgets	
•	Reading and		
	discussion of the	1.2 Provide examples of how students will be	
	introductory	prepared to employ the various strategies and	
	sections of the	skills during the basic school classroom work in STS	
	lesson up to and	Field Experience in year 4 semester 1.	
	including learning	4.27	
	outcomes and	1.3 The critical friend who observed lesson 9 shares	
	indicators	his/her observations.	
•	Overview of	4 4 Dand and identify the marks for the state of the t	
	content and	1.4 Read and identify the main features of the lesson	
	identification of any	from the course manual (lesson description,	
	distinctive aspects	learning outcomes and their corresponding	
	of the lesson/s,	indicators) individually.	

NB The guidance for SL/HoD should identify and address any areas where tutors might require clarification on any aspect of the lesson. NB SL/HoD should ask tutors to plan for their teaching as they go through the PD session	E.g., Learning Outcome: Demonstrate understanding and apply technology resources for solving educational problems, and making informed decisions. NTS: 1a, 1d, 2c, 2e/NTECF: Pillar 1& 3 Distinctive Aspect 1.5 Write at least two (2) distinctive aspect of lesson 10 on a sticky note for discussion. E.g., Issues surrounding procurement, Procurement processes. 1.6 Identify areas that need further clarification in the lesson.	
2. Concept	Concept Development	15 mins
Development (New	Consept Development	
learning likely to	2.1 In groups of at least two (2) list and share the	
arise in lesson/s):	major concepts in lesson 10. E.g., procurement,	
 Identification and 	Procurement processes.	
discussion of new		
learning, potential	2.1.1 Using concept map strategy, discuss the major	
barriers to learning	concepts of the lesson identified	
for student teachers		
or students,	2.2 Write any possible barriers in learning the concept	
concepts or	above for discussion.	
pedagogy being introduced in the	Eq: Some student teachers may not have good	
lesson, which need	knowledge of goods and services used by schools.	
to be explored with	knowledge of goods and services used by serioois.	
the SL/HoD	2.3 Identify appropriate teaching strategies that can	
NB The guidance for	best explain the new concepts identified.	
SL/HoD should set out	·	
what they need to do	E.g., Lecturette & Questioning: give a brief interactive	
to introduce and	lecturette on issues surrounding the procurement	
explain the issues/s	function.	
with tutors		
3. Planning for	Planning for teaching, learning and assessment	40 mins
teaching, learning	activities	
and assessment		
activities for the	3.1. Read through the teaching and learning activities	
lesson/s	outlined in lesson 10 of the course manual(s) for	
 Reading and 	group discussion.	
discussion of the		

- teaching and learning activities
- Noting and addressing areas where tutors may require clarification
- Noting opportunities for making links to the Basic School Curriculum
- Noting opportunities for integrating: GESI responsiveness and ICT and 21st C skills
- Reading, discussion, and identification of continuous assessment opportunities in the lesson. Each lesson should include at least two opportunities to use continuous assessment to support student teacher learning
- Resources:
 - o links to the existing PD Themes, for example, action research, questioning and to other external reference material: literature, on web, Utube, physical resources, power point; how they should be used. Consideration needs to be given

- E.g., the tutor uses an interactive lecturette to introduce student teachers to the procurement.
- 3.1.1 Discuss the findings among themselves.
- 3.1.2 Note areas that require clarification and/or contribution.
- E.g., Procurement types and processes with special emphasis on the Ghanaian procurement law
- 3.2. In groups of at least two (2), discuss how the different activities would be carried out in both CoE and the Basic School Curriculum (BSC) to achieve the LOs and the LIs of the course manual for lesson 10.
- E.g., Teaching and interactive lectures: *Teacher* teaches and student teacher/students partakes and emulate his/her teaching.
- 3.3. Using think-pair-share, discuss how GESI issues like inclusivity is related to the teaching and learning activities of the lesson would be addressed.
- E g. People with SEN taking turns in leading roles.
- 3.4 Identify any 21st century skills that can be developed or applied in the lesson and how they can help student teachers to support basic school leaners to develop these skills through STS activities.
- E.g., The use of mobile phones to watch YouTube videos on the Procurement law of Ghana.
- 3.5 Read and discuss the assessment activities in the manual and identify areas in the lesson that can be used for assessment especially on NTEAP related activities.
- E.g., Create a Wiki on "the benefits of having a transparent procurement process" to be added to e-portfolio.

•	to local availability o guidance on any power point presentations, TLM or other resources which need to be developed to support learning Tutors should be expected to have a plan for the next lesson for student	 3.6 List the needed inclusive resources for the teaching and learning of the concepts identified in both CoE and basic school classroom. E.g., Smartphones, Laptops, Desktop computers, Tablets, TV and Radio 3.7 Brainstorm on a plan that will be appropriate for the next lesson i.e. Managing the IT client (Marketing) 	
	teachers		
4.	Evaluation and review of session:	Evaluation and review of session	15 mins
•	Tutors should Identifying critical friends to observe	4.1 Individually identify any outstanding issues relating to the lesson 10 to be addressed.	
	lessons and report at next session.	NB: Give time for discussion if any	
•	Identifying and addressing any outstanding issues relating to the	4.2 Identify a critical friend to observe the PD session and report on observations during next the PD session	
	lesson/s for clarification	4.3 Read lesson 11 from the PD manual and find its relevant materials for the next session.	

Age Levels/s: JHS

Name of Subject/s: ICT

Technology leadership and Management

Topic:

Managing the IT client (Marketing)

Tutor PD Session for Lesson 11 in the Course Manual

Focus: the bullet points provide the frame for what is to be done in the session. The SWL should use the bullets to guide what they write for the SL/HoD and tutors to do and say during each session. Each bullet needs to be addressed and specific reference should be made to the course manual/s.	Guidance Notes on Tutor Activity during the PD Session. What PD Session participants (Tutors) will do during each stage of the session.	Time in session
Introduction to the session	Introduction to the session	20 mins
 Review prior learning A critical friend to share findings for a short discussion and lessons learned Reading and discussion of the introductory sections of the lesson up to and including learning outcomes and indicators Overview of content and identification of any distinctive aspects of the lesson/s, 	 1.1 Review and reflect on the previous PD Session Lesson 10 and how useful it was on lessons taught. i.e., Recap on preparation of budgets. 1.2 Provide examples of how students will be prepared to employ the various strategies and skills during the basic school classroom work in STS Field Experience in year 4 semester 1. 1.3 The critical friend who observed Lesson 10 to share his/her experiences and the impacts on their facilitating in class. 1.4 Read the introduction, lesson description and the purpose of lesson 10 in the course manual and indicate how they are related to student teachers' relevant previous knowledge. 	

NB The guidance for	1.5 Identify the distinctive aspects of the lesson.	
SL/HoD should identify		
and address any areas	e.g., Marketing orientation,	
where tutors might		
require clarification or	•	
any aspect of the	lessons in pairs.	
lesson.	4.601.6	
NB SL/HoD should ask	1.6 Plan for your teaching as you go through the PD	
tutors to plan for their	session.	
teaching as they go		
through the PD session		
	orientation and using questioning to draw out the	
	features of the marketing orientation.	
2. Concept	Concept Development	15 mins
Development (Nev	v	
learning likely to	2.1 Write any major concept in the lesson and share	
arise in lesson/s):	with the whole group	
Identification and	E.g.,	
discussion of new	i. Marketing orientation	
learning, potential	ii. Marketing Mix	
barriers to learning		
for student	2.2 Discuss the potential misconceptions and barriers	
teachers or	with respect to the concepts listed above.	
students, concepts		
or pedagogy being	E.g., Some student/teachers might not appreciate the	
introduced in the	ICT services provided to school.	
lesson, which need		
to be explored witl	2.3 identify the most appropriate teaching strategies	
the SL/HoD	that can best explain the new concepts identified	
NB The guidance for		
SL/HoD should set out	E.g., E-learning & Questioning (Showing a short video	
what they need to do	on the marketing orientation and uses questioning to	
to introduce and	draw out the features of the marketing orientation	
explain the issues/s	distinguishing it from	
with tutors	the sales and production	
	orientation)	
3. Planning for	Planning for teaching, learning and assessment	40 mins
teaching, learning	activities	
and assessment		
activities for the	3.1 Watch a YouTube video and discuss the teaching	
lesson/s	and learning activities in the course manuals.	
Reading and	5 - 1 - 5 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	
discussion of the	E.g.,	
teaching and	A short video on marketing	
learning activities	orientation distinguishing it from the sales and	
icarring detivities	production orientation.	
	L - seemen entermentern	L

- Noting and addressing areas where tutors may require clarification
- Noting opportunities for making links to the Basic School Curriculum
- Noting opportunities for integrating: GESI responsiveness and ICT and 21st C skills learning
- Resources:
 - o links to the existing PD Themes, for example, action research, questioning and to other external reference material: literature, on web, Utube, physical resources, power point; how they should be used.

https://youtu.be/1sMdFYeGOCs

- 3.1.1 Identify areas in the video you watched that require further clarifications.
- 3.2 Discuss how these different activities from the video watched would be carried out in both CoE and basic school classroom to achieve the LOs and the LIs of the course manual for lesson 11.

Note: ensure all instructions carried out are gender responsive. Making both gender active in the discussion and not forgetting people with SEN.

- 3.3 Discuss how GESI issues like assigning leadership roles to females if applicable are related to the teaching and learning activities of the lesson would be addressed.
- 3.4 Identify any other 21st century skills that can be developed or applied in the lesson and how it can help student teachers to support basic school leaners to develop these skills through STS activities.
- E.g., The use of Tablets to surf and identify the features of the marketing orientation, distinguishing it from the sales and production orientation.
- 3.5 Read the assessment activities in the course manual and identify areas that require clarification.
- E.g., Write a reflective note on how the marketing mix can be used to shape ICT services provided in school.

These could be added to their subject portfolio/project

- 3.6 Identify other inclusive resources for teaching and learning of the concepts in both CoE and basic school classroom.
- E.g., laptops, Audio-visuals from YouTube
- 3.7 Be sure to have a concrete plan for teaching the next topic.
- i.e. IT Management Best Practices

4.	Evaluation and review of session:	Evaluation and review of session:	15 mins
•	Tutors should Identifying critical friends to observe	4.1 Individually, identify any outstanding issues relating to the lesson 11 to be addressed	
•	lessons and report at next session. Identifying and addressing any	4.2 Identify a critical friend who took part in the PD session to sit in your class during lessons and report on observations during the next PD session.	
	outstanding issues relating to the lesson/s for clarification	4.3 Read lesson 12 from the PD manual and find its relevant materials for the next session.	

Name of Subject/s: ICT
Topic: IT Management Best

Practices

Tutor PD Session for Lesson 12 in the Course Manual

Focus: the bullet points provide the frame for what is to be done in the session. The SWL should use the bullets to guide what they write for the SL/HoD and tutors to do and say during each session. Each bullet needs to be addressed and specific reference should be made to the course manual/s.	Guidance Notes on Tutor Activity during the PD Session. What PD Session participants (Tutors) will do during each stage of the session.	Time in session
1. Introduction to the session	Introduction to the session	20 mins
 Review prior learning A critical friend to share findings for a 	1.1 Write any new thing you learnt in the last PD session on lesson 11. i.e., Managing IT client (Marketing)	
short discussion and lessons learned Reading and	1.1.1 Share what you have written for whole group discussion.	
discussion of the introductory sections of the lesson up to and including learning	1.2 Ask tutors to provide examples of how students will be prepared to employ the various strategies and skills during the basic school classroom work in STS Field Experience in year 4 semester 1.	
outcomes and indicators	1.3 Tutors who observed Lesson 11 to share their experiences to the group.	
 Overview of content and identification of any distinctive aspects of the lesson/s, 	1.4 Read the introduction, lesson description and the purpose of lesson 12 in the course manual and indicate how they are related to student teachers' relevant previous knowledge.	
NB The guidance for SL/HoD should identify and address any areas where tutors might	E.g., Student teachers will examine some of the best practices used in managing services. NTS: 1b, 1c, 1e, 1f, 1g, 2c, 2e/ NTECF: Pillar 1, 2 & 3	

		I	1
	quire clarification on	Distinctive Aspect	
	y aspect of the		
	son.	1.5 Write any one (1) distinctive aspect of the lesson	
NB	SL/HoD should ask	for discussion. i.e.	
tut	ors to plan for their	Marketing Orientation	
tea	aching as they go		
thr	ough the PD session	1.6 Share your responses with a colleague.	
	J	, .	
2.	Concept	Concept Development	15 mins
	Development (New	·	
	learning likely to	2.1 Using interactive talk for learning engage in a	
	arise in lesson/s):	discussion on the major concepts:	
	- ·	discussion on the major concepts.	
•	Identification and		
	discussion of new	e.g., Marketing orientation	
	learning, potential		
	barriers to learning	2.2 Discuss the potential misconceptions and barriers	
	for student	with respect to the concepts listed above.	
	teachers or		
	students, concepts	E.g., Marketing is a waste of money	
	or pedagogy being		
	introduced in the	2.3 identify the most appropriate teaching strategies	
	lesson, which need	that can be employed to best explain the new	
	to be explored with	concepts identified	
	the SL/HoD		
	The guidance for	E.g., Using demonstration to teach student teachers	
	'HoD should set out	how to surf for information online.	
	at they need to do		
to	introduce and		
ex	olain the issues/s		
wit	th tutors		
3	Planning for	Planning for teaching, learning and assessment	40 mins
٥.	teaching, learning	activities	40 1111113
	-	activities	
	and assessment		
	activities for the	3.1 Read the teaching and learning activities of lesson	
	lesson/s	12 from the course manual. E.g.,	
•	Reading and		
	discussion of the	Watch short videos from YouTube on Marketing	
	teaching and	orientation.	
	learning activities	https://youtu.be/y76z-QFFta0	
•	Noting and		
		3.1.1 Identify areas in the video you watched that	
	addressing areas	3.1.1 Identify areas in the video you watched that	
	where tutors may	require further clarifications.	
	require clarification		
•	Noting	3.2 Discuss how these different activities from the	
	opportunities for	video watched would be carried out in both CoE	
	making links to the	and basic school classroom to achieve the LOs and	
		the LIs of the course manual for lesson 12.	
			1

- Basic School Curriculum
- Noting opportunities for integrating: GESI responsiveness and ICT and 21st C skills
- Reading, discussion, and identification of continuous assessment opportunities in the lesson. Each lesson should include at least two opportunities to use continuous assessment to support student teacher learning
- Resources:
 - o links to the existing PD Themes, for example, action research, questioning and to other external reference material: literature, on web, Utube, physical resources, power point; how they should be used. Consideration needs to be given to local availability
 - guidance on any power point presentations, TLM or other resources which need to be

Note: remind Tutors to ensure that all instructions carried out should be gender responsive (e.g., equity, inclusivity, cultural diversity).

- 3.3 Discuss how GESI issues related to the teaching and learning activities of the lesson would be addressed in the lesson.
- E.g., How cultural diversity would be addressed in teaching marketing orientation in the classroom.
- 3.4 Identify any 21st century skills that can be developed or applied in the lesson and how they can help student teachers to support basic school leaners to develop these skills through STS activities.
- E.g., Watching a YouTube video on marketing orientation with their mobile phones
- 3.5 Read the assessment activities in the course manuals and identify areas that require clarification.
- E.g., Student teachers to develop an algorithm for a website using marketing mix techniques to promote an item. The algorithm is to go into their portfolio

Note!!

These could be added to their subject portfolio/project

- 3.6. Identify other inclusive resources for teaching and learning of the concepts in both CoE and basic school classroom.
- E.g., Smart phones, Audio-visuals from YouTube, projector.
- 3.7 Ensure you have a concrete plan for teaching the next topic.

•	developed to support learning Tutors should be expected to have a plan for the next lesson for student teachers		
4.	Evaluation and	Evaluation and review of session:	15 mins
4.	Evaluation and review of session:	Evaluation and review of session:	15 mins
4.		Evaluation and review of session: 4.1. Individually, identify any outstanding issues	15 mins
	review of session:		15 mins
	review of session: Identifying and	4.1. Individually, identify any outstanding issues	15 mins
	review of session: Identifying and addressing any	4.1. Individually, identify any outstanding issues relating to the lesson 12 and the other previous	15 mins
	review of session: Identifying and addressing any outstanding issues	4.1. Individually, identify any outstanding issues relating to the lesson 12 and the other previous	15 mins

Appendix 1

The PD session check list: supporting B.Ed. implementation.

In some cases, to support implementation and address recent developments the PD session writers may need to add detail to what is covered in the course manuals

What to Include in PD sessions	Checked
	and In
	Place.
Course introductions and conclusions	
 The first PD session of each semester introduces the course manual/s, 	
course expectations and course assessment components	
• The final PD session provides the opportunity to review student teachers'	
learning from the course	
Prior knowledge: Points for tutors on activating student teachers' prior	
knowledge.	
Basic School Curriculum: when topics for student teachers are from the Basic	
School Curriculum the PD session makes explicit links.	
LO: relevance to each session are introduced	
Interactive teaching PD sessions provide opportunities for SL/HOD to model	
interactive approaches to teaching and learning that tutors will use to support	
student teachers	
Lesson Learning outcomes and indicators are introduced	
Integration of subject specific content and subject specific pedagogy is	
modelled in PD sessions through activities for tutors. Any potentially new	
concepts introduced in the lesson are explored with tutors	
Subject Specific Training: where subjects have been grouped together for the	
PD sessions, tutors are guided to engage with activities in the subject course	
manuals to ensure the PD is subject specific. Where appropriate there is	
direct page or point references to activities in each of the relevant subject	
course manuals.	
Integrating GESI: each PD session explicitly includes at least two (2) teaching	
and learning activities from the course manual/s which should be used to	
promote student teachers' understanding of GESI responsiveness and support	
the inclusion of all pupils.	
Assessment, integrating and embedding NTEAP practices: PD sessions	
include at least two (2) continuous assessment opportunities which will	
support tutors in developing student teacher's understanding of, and ability	
to apply, assessment for or as learning.	
Age Specific Training: where relevant tutors are guided to specific activities in	
the course manuals for EG, UP and JHS. Tutors are advised to group student	
teachers according to the age they are training for.	
Building in STS: STS tasks are integrated into the PD sessions. Preparing for	
work in school and opportunities for tutors to draw on what student teachers	
are learning in school by, for example, targeting observations linked directly	
to the themes in the course manuals.	
Building in activities which support the development of 21c skills in	
particular the use of ICT. The development of these is integrated into the PD	

sessions including the use of ICT to support learning. Each PD session should		
include at least two (2) examples of students being required to use ICT to		
extend their learning.		
Resources /TLM. Where specific resources are required, it is clear where		
tutors can access them e.g., videos, online resources or readings.		

Appendix 2. Course Assessment Components briefly

COMPONENT	SUBJECT PROJECT	SUBJECT PORTFOLIO
	1 per course per semester, individual	1 per course per semester, individual
	or collaborative student teacher	or collaborative student teacher work.
	work.	
	The Subject project is an assignment	The Subject Portfolio is the deliberate
	designed to enable student teachers	collection of student teachers' work
	to demonstrate achieving one or more	that has been selected and organized
	of the CLOs, progress towards	for a particular subject to show student
WHAT IS IT?	achieving identified NTS, development of knowledge and understanding of:	teacher's learning and progress to achieving the CLOs through examples
LIS I	the Basic School Curriculum, GESI	of his or her best work.
[4	responsiveness, using ICT mand 21stC	of this of their best work.
₹	skills	
	Introduction: a clear statement of aim	3 items of work produced during the
	and purpose	semester selected by student teachers
	Methodology: what the student	with tutor support during the semester
	teacher has done and why to achieve	as best examples of their progress and
	the aim and purpose of the project	200-word reflection on the items*
S	Substantive or main section:	Or 2 items of work and
CONSTITUENTS	Presentation of any artifacts,	A mid semester assessment: case
5	experiments, TLMs created for the	study, reflective note, quiz.
E	project; presentation, analysis, and	* For each item they select, Student
Ž	interpretation of what has been done,	teacher's need to reflect on
ŭ	learned, or found out in relation to focus of the project.	progress against identified NTS; achieving CLOs; increased knowledge
	Conclusion: Statement of the key	and understanding of the Basic School
	outcomes of the project; reflection on	Curriculum, GESI responsiveness,
	what the student teacher has learnt	integration of ICT and how they could
		have approached developing the item
		differently to achieve a better outcome
	Overall weighting of project = 30%	Overall weighting of project = 30%
	Weighting of individual parts of	Weighting of individual parts of
	project out of 100	portfolio out of 100
	Introduction – 10	i(a). Each of the three (3) items
	 Methodology – 20 	selected by the student teacher is 30
토	 Substantive section – 40 	% (90%).
WEIGHT	• Conclusion – 30	i(b) Presentation and organisation of portfolio 10%.
₹		OR
		ii(a). Each of the two (2) items selected
		by the student teacher is 30 % (60%).
		ii(b)Mid semester assessment 30%
		ii(c)Presentation and organisation of
		portfolio 10%
	End of semester Exam, weight 40%. To assess: achievement of one or more of	
EXAM		entified NTS, development of knowledge
EX	_	Curriculum, ability to use GESI responsive
	approaches and to integrate ICT and 21s	C skills in teaching and learning

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T-TEL Support Team		
Professor Jophus Anamuah-Mensah	T-TEL – T-TEL Board Chair	
Professor Jonathan Fletcher	T-TEL – Key Advisor, Teaching & Learning Partnerships	
Bea Noble-Rogers	T-TEL – International Teacher Education Curriculum Expert	
Dr. Sam Awuku	T-TEL – Key Advisor, Leadership for Learning &	
	Institutional Development	
Dinah Adiko	T-TEL – Key Advisor, Gender Equality and Social Inclusion	
Beryl Opong-Agyei	T-TEL – National Teacher Education Coordinator	
Marjorie Tackie	T-TEL – Gender Equality and Social Inclusion Coordinator	
Hawa Nindow	T-TEL – Education Advisor	
Peter Chammik Jayom	T-TEL – Education Advisor	
Wilhemina Gyamfi	T-TEL – Education Advisor	
Issahaku Abudulai	T-TEL – Education Advisor	
Victor Sunkwa Asamoah	T-TEL – Education Advisor	
James Adefrah	T-TEL – Education Advisor	
Roger Kwamina Aikins	GM – Commercial (Oversees design, print and distribution)	

SUBJECT WRITING TEAM

SUBJECT	NAME	INSTITUTION
Mathematics	Prof. Gabriel Asare Okyere	Kwame Nkrumah University of Science and
		Technology, Kumasi
	Eric Abban	Mt. Mary College of Education, Somanya
	Eric Kwame Austro Gozah	Dambai College of Education Dambai
	Akuffo Frank Assah	University for Development Studies, Tamale
French	Dr Stella Afi Makafui	Kwame Nkrumah University of Science and
	Yegblemenawo	Technology, Kumasi
	Osmanu Ibrahim	Mt Mary College of Education, Somanya
	Felix Asare Odonkor	University of Education, Winneba
Language and	Prof. Charles Owu-Ewie	University of Education, Winneba
Literacy	Dr. Abraham Okrah	University of Ghana, Legon Accra
	Dr. Kwesi Adomako	University of Education, Winneba
	Abdul-Moomin Abdul-Aziz	Nusrat Jahan Ahmadiyya College of Education, Wa
	Comfort Dorvlo	Accra College of Education, Accra
	Freda Asante-Kumi	
	Awudu Rafick	Accra College of Education, Accra
PEMD		University for Development Studies, Tamale
PEIVID	Justice Gideon Adjerakor	University of Education, Winneba
	Godfred Teye Mensah Akuffo	Bia Lamplighter College of Education, Sefwi
		Debiso
	Philemon D.K. Agbenyega	Dambai College of Education, Dambai
	Dr Emmanuel Osei Sarpong	University of Education, Winneba

Pedagogy	Dr Winston Kwame Abroampa	Kwame Nkrumah University of Science and Technology, Kumasi
	Dr. Maxwell Kwesi Nyatsikor	University for Development Studies, Tamale
	Dr John Sedofia	University of Ghana, Legon Accra
	Fadilata Seidu	Nusrat Jahan Ahmadiyya College of Education,
		Wa
	Kweku Essia Donkor	University of Education, Winneba
	Dr Nyadu Offei	University of Education, Winneba
	John Aditorem	Tumu College of Education, Tumu
Science	Prof Rueben Yao Tamakloe	Kwame Nkrumah University of Science and
		Technology, Kumasi
	Maxwell Bunu	Ada College of Education, Ada
	Valentina Osei-Himah	Atebubu College of Education, Atebubu
	Comfort Korkor Sam	University for Development Studies, Tamale
	Ambrose Ayikue	St. Francis College of Education, Hohoe
ICT	Victoria Boafo	Mampong Technical College of Education, Ashanti Mampong
	Richard Adusei	University for Development Studies, Tamale
	Paul Mensah	St. Louis College of Education, Kumasi
TVET	Rev. Dr. Nyuieko Avotri	Former Principal, Mampong Technical College
		of Education, Ashanti Mampong
	Michael Eco Adixey	Akatsi College of Education, Akatsi
	Rev Godwin Gbadagba	Dambai College of Education, Dambai
	David Ankutse	Accra College of Education
	Grace Annagmeng Mwini	Tumu College of Education
	Rejoice Makafui Tsotorvor	Akatsi College of Education, Akatsi
Social	Dr Dacosta Aboagye	Kwame Nkrumah University of Science and
Sciences		Technology, Kumasi
	Dr. Mohammed Adam	University of Education, Winneba
	Tia Yahaya	Tamale College of Education
	Stephen Koomson	St Vincent College of Education
	Joseph Mihaye	Accra College of Education
	Ibrahim Abudulai	Gambaga College of Education
	Limpu Isaac Digbun	Bagabaga College of Education
	Felix Dongballe	McCoy College of Education
	Burukum Achor	Dambai College of Education
	Mercy Sarpong Mintah- Botchey	Presbyterian College of Education, Akropong
	Salifu Fawzi Rahaman	Nusrat Jahan Ahmadiyya College of Education, Wa