

EDUCATION COLLEGE CURRICULUM FRAMEWORK FOR 4-YEAR DEGREE

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montrose

TRAINING HIGH QUALITY PRIMARY AND MIDDLE SCHOOL TEACHERS

Bachelor of Basic Education (B.Ed) [Primary School]

Bachelor of Basic Education (B.Ed) [Middle School]¹

Education Colleges, Myanmar

“The quality of an education system cannot exceed the quality of its teachers”²

This is the curriculum framework for a four-year pre-service degree course qualifying student teachers to teach in primary and middle school.

The purpose of this document is to guide the development of the four-year degree for training primary and middle school teachers. The document should be used as a tool to aid policy dialogue and inform decisions about what primary and middle school teachers need to learn and how they should be trained.

The framework is presented as a technical document designed to address the current systemic issues within Myanmar’s teacher education system. The design assumes a number of policy decisions that are yet to be made. These are listed in Table 1.

The design of the framework is based on an in-depth review of the existing curriculum documentation and informed by international best practice. This research is documented in the *UNESCO STEM Education College Curriculum Review Report (2016)*, which should be viewed as an accompanying contextual document to this technical one.

The concept of a four-year degree course for primary and middle school teachers is new in Myanmar. It is a policy option currently being explored to raise the quality of Myanmar’s pre-service teacher education system, bringing it in line with international standards.

Authors: This document was drafted by Montrose International consultants, guided by UNESCO Myanmar and UNESCO International Bureau of Education (IBE), based on consultations with representatives from the Ministry of Education, Education Colleges, the Universities of Education, and other stakeholders.

¹ See international example of degree titles in the UNESCO STEM Education College Curriculum Review (2016). p. 37

² McKinsey and Co. (2007), *How the world’s best performing school systems come out on top*, London

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ACRONYMS

A.TEO	Assistant Township Education Officer
B.Ed	Bachelor of Education
B.ECF	Basic Education Curriculum Framework
CESR	Comprehensive Education Sector Review
C.TEd	Certificate in Teacher Education
CPD	Continuous Professional Development
DHE	Department of Higher Education
DTET	Department of Teacher Education
D.TEd	Diploma in Teacher Education
D.TEC	Diploma in Teacher Education Competency
EC	Education College
EfECT	English for Education College Trainers
ICT	Information and Communication Technologies
IoE	Institute of Education
JAT	Junior Assistant Teacher
JICA	Japan International Cooperation Agency
MoE	Ministry of Education
NEL	National Education Law
PAT	Primary Assistant Teacher
PPTT	Pre-Primary Teacher Training
PTR	Pupil Teacher Ratio
OECD	Organisation for Economic and Cooperation and Development
SAT	Senior Assistant Teacher
STEM	Strengthening Pre-service Teacher Education in Myanmar
TCSF	Teacher Competency Standards Framework
TEO	Township Education Officer
TOR	Terms of Reference
VSO	Voluntary Service Overseas
UDNR	University of Development of National Races
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund
UoE	University of Education

INTRODUCTION TO THE EDUCATION COLLEGE CURRICULUM FRAMEWORK

Role of the curriculum framework

A curriculum framework is “a document...that sets standards for curriculum and provides the context (available resources, capabilities of teachers and system support) in which subject specialists develop syllabi”.³ It describes the education environment and overarching learning objectives to guide what should be taught and how it should be taught. As seen in *Figure 1*, it provides the first step in the development of the curriculum, and then the syllabus and the textbooks.⁴

This teacher education curriculum framework needs to reflect two other important frameworks:

1. the Basic Education Curriculum Framework which stipulates the expectations of what and how pupils should learn in school and therefore provides the direction on what the student teachers need to learn in order to teach;
2. the Teacher Competency Standard Framework which stipulates what teachers are expected to do and therefore provides the direction on what the student teachers need to be able to do in the classroom (knowledge, skills and attitudes).

The curriculum framework is critical in ensuring that education colleges have the direction needed to consistently produce high quality teachers. It outlines the content structure (the ‘what’) and the methodology (the ‘how’) to meet the demands and expectations of Myanmar’s education system and teaching profession. A key benefit of a curriculum framework is that it provides the overarching guidance under which specific changes can be made to respond accordingly to reforms and fluctuating societal and economic demands.

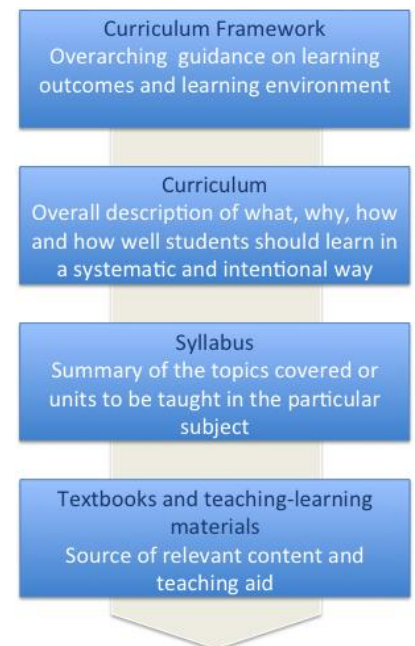


Figure 1: Diagram illustrating the overarching role of the curriculum framework for the later development of the curriculum, then syllabus, then textbooks

Structure of the curriculum framework

A curriculum framework can be structured in different ways. This framework is based on an adapted version of a framework put forward by UNESCO International Bureau of Education (IBE). The structure is part of their ‘Training Tools for Curriculum Development: Resource pack - Module 3’ designed to support national level curriculum reforms⁵. It is made up of the eight core components:

1. Current context
2. Educational policy statements

³ Working definition of the term curriculum framework taken from: Stabback, P. What Basic Education for Africa? Kigali, Rwanda – 25-28 September 2007 Discussion Paper for Session 3 – Final Version Guidelines for Constructing a Curriculum Framework for Basic Education p.3

⁴ The development of the subject specific teacher education curriculum and syllabi is therefore not included in this phase of the curriculum reform. This latter phase will need to build directly on the curriculum framework once it has been agreed on and will entail a larger-scale project bringing in teams of subject specialists.

⁵ Full details of the training tool can be accessed:

http://www.ibe.unesco.org/fileadmin/user_upload/COPs/Pages_documents/Resource_Packs/TTCD/sitemap/Module_3/Module_3_1_concept.html

3. Statement of overarching learning objectives and outcomes
4. Structure of the teacher education system
5. Structure of curriculum content, learning areas and modules
6. Standards of resources
7. Training methodology
8. Assessing student teacher achievement

Policy assumptions for implementation of the curriculum framework

As Myanmar is in a period of transition, there are a number of teacher policy dimensions that are discussed in this document but for which, policy decisions are yet to be made. It is important to caveat that this curriculum framework is presented as a working document to aid policy decisions. It provides a technically sound yet creative tool for modelling potential next steps. It therefore includes a number of policy assumptions. These policy assumptions are listed in the table below and are referenced in the footnotes throughout the document. This is especially relevant in the Structure of the Teacher Education System section of this framework document.

Table 1: Summary of policy assumptions

Assumptions	Rationale
Introduction of a four-year degree for primary and middle school teaching qualification	Four years is the international benchmark for teacher education and is seen as being the length of time needed to master subject matter, teaching-learning process and gain sufficient classroom practice. Having a degree-level qualification as a minimum requirement for teachers is a common component in high-performing education systems.
Raising the entry requirement	Setting pre-requisites will help attract a high calibre of students and thereby raise the quality standards of teachers. The requirement however is not too high as this could become a barrier to access, in light of the teacher deficit.
KG:5:4:3 system (1 year of KG (age 5), 5 years of primary (age 6 to 10), continuing through 4 years of middle school (age 11 to 14) on to three years of High school (age 15-17))	K-12 (kindergarten through to Grade 12) is the international standard for education systems. The Philippines for example has recently added an additional two grades to their former K-10 system.
Approval of the draft Teacher Competency Standards Framework	It is important the teaching profession has a clear and concise description of the expectations of what teachers should be able to do in order to deliver effective learning.
Introduction of an induction year post qualification	International best practice highlights the importance of supporting teachers in their first year of service.
Introduction of a teacher's licence	An accountability structure provides a mechanism for quality improvement and quality assurance that will also raise the status of teaching.
Removing the ladder system and bridge programme	Creating a hierarchy within the education levels affected the teaching quality and status of lower level teachers. The inclusion of unnecessarily advanced academic subjects to enable the bridge programme and further study compromised the time available to train student teachers how to teach.
Systematising in-service training	With over 360,000 teachers already in the teaching profession and the fast-paced nature of the 21st century, in-service training is critical to ensure teaching quality in terms

	of both effectiveness and relevance. ICT, and the opportunities it affords through m-learning/ e-learning etc. should play an increasingly important role. The need for in-service training is referenced in NEL.
Introduction of a Coordination and Regulatory body	A form of body is needed to 'coordinate' (ensure consistency and efficiency) and to 'regulate' (ensure quality) the teacher education system. The NEL emphasises the need for QA at all education levels. Further details on the nature of this body are not elaborated on here as this requires further policy discussion beyond the scope of this framework.
Teacher policy	A teacher policy ensures that all teacher-related dimensions can work together in a cohesive system and can be used as a mechanism to regulate the system.
Teacher Educator Competency Standards Framework	Effective teacher education needs effective teacher educators; the competency and standards framework would provide the quality structure and professional development pathway to maintain best training practices in colleges.
Pupil teacher ratio of 30:1	Although there is no statistical evidence defining the most effective class size (due to the influence of multiple other variables) the general consensus is that 30 per classroom is the upper limit before class size starts to compromise teaching methodology.
Partner schools	Using schools in the local vicinity provides opportunities to extend and better manage the practicum component of teacher education. Local partner schools allow practicum to be delivered in smaller blocks so that student teachers get more support in carrying out specific objectives.
Mentoring module as in-service training module	Investing in existing teaching staff has the dual-impact of up grading a teacher's set of competencies and ensuring student teachers get the support needed to learn from their practicum experiences.
Teacher educator guides	A specific guide focused on how to effectively teach would provide teacher educators with a more relevant tool to support and enhance their teaching methods.

CURRENT CONTEXT

Teachers are acknowledged as being the most important school level input to quality education.⁶ The Ministry of Education (MoE) in Myanmar, recognising the critical role of teachers, has prioritised raising the standards of teacher education as a key reform.

Teacher education is critical in producing quality teachers. To deliver effective education to all Myanmar's 11,308,187 school-aged children, over 400,000 teachers are needed, trained in the appropriate knowledge, skills and values.⁷ People are seldom, if ever, born effective teachers; producing quality teachers takes training and practice.

Quality teachers are critical to improving student learning achievements. High performing education systems such as Singapore and Finland invest significantly in developing the quality of their teachers.⁸ There are a number of statistical studies that identify effective teaching as not only being the most important school-level input to effective student learning but demonstrate that several consecutive years of good teaching can offset prior learning deficits.⁹

Improved student learning achievements have been found to correlate with economic growth, social development and political stability. As Myanmar transitions to becoming a modern democracy, there is increasing pressure to ensure effective student learning to support:

1. **Economic growth:** Countries with higher student achievement have higher rates of economic growth.¹⁰ An educated workforce is essential for Myanmar to develop and sustain a modern, globally competitive economy and reach its goal of a middle-income status country.¹¹
 - An increasing percentage of the Myanmar job market requires an intellectual skill-set relevant to its emerging fast-paced, diversified 21st century economy. According to an UN-led business survey of companies in Myanmar, the lack of relevant skills is the second most severe barrier to economic growth after corruption.¹²
 - Myanmar's education system needs to meet international benchmarks to compete in the global workplace. This is especially important in the dawn of joining the ASEAN Economic Community (AEC) where international boundaries between labour

⁶ Hattie, J (2003) *Teachers make a difference: What is the research evidence?* Australian Council for Educational Research Annual Conference on Building Teacher Quality, University of Auckland: New Zealand <http://visible-learning.org/hattie-ranking-influences-effect-sizes-learning-achievement/>

⁷ Total school age population taken from Population and Housing Census Data (2014); total number of teachers calculated by dividing total number by intended pupil teacher ratio (PTR) of 28:1

⁸ Based on analysis of the OECD's Programme for International Student Assessment (PISA), this report demonstrates that high-performing school systems, though strikingly different in construct and context, maintain a strong focus on improving instruction because of its direct impact upon student achievement. McKinsey and Co. (2007), *How the world's best performing school system come out on top*, London

⁹ A number of studies have sought to measure the impact of quality teachers on learning outcomes. Example studies include Hanushek & Rivkin 2010; Hanushek, Kain, O'Brien & Rivkin 2005; Rockoff 2004 (see list of references)

¹⁰ A number of studies have measured the correlation between economic growth and student learning. Example studies include: Hanushek & Woessmann 2007, 2009, 2010; Pritchett & Viarengo 2009 (see list of references)

¹¹ Young Park. C., Muhammad E.K., & Vandenberg P., (2012)., *Myanmar in Transition: Opportunities and Challenges*, Mandaluyong City, Philippines: Asian Development Bank (ADB)

¹² Abe, Masato and Margit Molnar (2014), Myanmar Business Survey 2014: Survey Results, OECD and UNESCAP. http://www.unescap.org/sites/default/files/MBS_Survey_Results.pdf

forces will be removed. The current standard of skills is comparatively low with the average productivity level 70 per cent below that of benchmark Asian countries.¹³

2. **Social development:** Equitable access to quality education is essential for the inclusive development of Myanmar.¹⁴ Societal friction is often exacerbated when only the educated are equipped to benefit from new opportunities, while those without educational access remain excluded from progress. In Myanmar, this is especially important in ensuring quality education is accessible regardless of remoteness, disability, ethnicity or religion. Currently over 3.5 million 5-16 year olds are excluded from the education system.¹⁵
3. **Political stability:** Research demonstrates that a key determinate of democracy is attainment of at least primary level education;¹⁶ the population needs to be equipped with the competencies to make informed decisions. Currently 13 per cent of the population do not have a primary qualification.¹⁷ Achieving democracy is a gradual process and is dependent on having a sound education system to equip a nation with decision-making faculties.

Myanmar's education system is currently recovering from a significant period of underinvestment. During the Socialist era (1962-88) education was nationalised and received little investment. The teacher education curriculum has not been comprehensively updated since 1998 and is recognised as being out-dated in terms of content and delivery.¹⁸

Since the change in government in 2011, there has been much investment into how to upgrade the education system; the recently elected National League for Democracy (NLD) is committed to continue strengthening the sector. Government spending has quadrupled since 2012/13¹⁹ and a comprehensive review of the sector has been carried out highlighting the priority transformations needed.²⁰ Upgrading teacher education is one of the identified reform priorities.

Dimensions of teacher education reform

There are three key, inter-related dimensions of teacher education reform:

¹³ McKinsey (2013). *Myanmar's Moment: Unique Opportunities and Major Challenges*, London

¹⁴ The importance of inclusive education is one of the post 2015 priorities seen in the Sustainable Development Goals (SDGs). Continuing on from the aspirations of achieving Education for All, Myanmar is a signatory to the SDGs and is developing the new national plan.

¹⁵ Calculated from the number of 5 to 16 years olds who have either 'Previously Attended' or 'Never Attended' school; Population and Household Census Data (2014)

¹⁶ Glaeser E., Ponzetto G., Shleifer A., (2007). Why does democracy need education?, *Journal of Economic Growth*, Springer, vol. 12(2); Barro, R. J. (1999). *Determinants of Democracy*. *The Journal of Political Economy*. 107(S6)

¹⁷ Population and Household Census Data (2014)

¹⁸ For further details see Section 1.1 Background on the teacher education system in UNESCO STEM Education College Curriculum Review (2016). p.11

¹⁹ World Bank (2015). *Realigning the union budget to Myanmar's development priorities: Public Expenditure Review* Washington, D.C.: World Bank Group.
<http://documents.worldbank.org/curated/en/504121467987907393/Realigning-the-union-budget-to-Myanmar-s-development-priorities-public-expenditure-review>

²⁰ The Comprehensive Education Sector Review (CESR) was a three-Phased detailed review of Myanmar's education system which culminated in the National Education Strategic Plan (2015)

There is a need to improve teacher quality to improve learning outcomes; there is limited data on learning outcomes to date but a 2010 study found that the majority of primary school completers had mastered only 50 per cent of the curriculum competencies in Myanmar language and Mathematics (literacy and numeracy).²¹ The 2014 Early Grade Reading Assessment (EGRA) results demonstrate a similar situation where the low mean score indicates that reading results fall short of Myanmar curriculum expectations and point to particular difficulties with phonetic awareness, decoding, and inferential comprehension of text.²² Improving teacher quality refers to both up-dating the teaching-learning process and increasing the relevance of the curriculum to Myanmar's socio-economic context. This includes aligning with the broader basic education reforms underway which aim to modernise the system and acknowledge the specific contextual needs of the country such as areas of post-conflict and post-disaster, diversity of ethnicity, language and religion and percentage of school-aged children living in remote, hard to reach areas.

There is a need to improve teacher status to attract and retain quality teachers and provide quality assurance of learning; low entry requirements, low salaries and the 'ladder based' system of promotion have resulted in teachers, especially those at primary level, being regarded as lower ranking professionals.²³ Improving teacher status includes reassessing recruitment policies, introducing competitive incentives and restructuring the promotion system in conjunction with a competency-based professional development framework instead of years in service.

There is a need to ensure equitable access to quality teaching;²⁴ in the context of Myanmar's diverse demographic and geography, it is essential that teachers are equipped with the skills needed to cope with multi-lingual and multi-grade classrooms, and are adequately incentivised to work in the more remote and hard-to-staff areas.²⁵ Equitable access allows for inclusive development which is a requisite for a peaceful democracy.

²¹ Vine, K. (2010). *Quantitative Study of Child Friendly School Implementation in Myanmar*. UNICEF: Myanmar

²² World Bank Group (2014) Myanmar Early Grade Reading Assessment for the Yangon Region, Results Report, World Bank. The study revealed that in a sample of children in Yangon region, 37% of Grade 1 students, 10% of Grade 2 students and 9% of Grade 3 students were not able to read a single word in Myanmar language.

²³ The ladder based system of promotion follows a hierarchical view of the education levels with lower qualified inexperienced teachers being placed in primary school and promoted up through middle school to high school based on years of service and additional training.

²⁴ Sustainable Development Goal Four (SDG 4) is the education-focused goal in the post-2015 development agenda. It aims to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all". <https://sustainabledevelopment.un.org/>

²⁵ A 2012 UNICEF report indicates that over 70% of primary schools in Myanmar are multi-grade. Hardman, F., Stoff, C. & Elliott, L. (2012). Baseline Study Child-Centred Approaches and Teaching and Learning Practices in Selected Primary Schools in Child-Friendly School Focused Townships in Myanmar. Myanmar: UNICEF.

EDUCATIONAL POLICY STATEMENTS²⁶

The vision of the Ministry of Education is “to create an education system that will generate a learning society capable of facing the challenges of the Knowledge Age”.²⁷ To meet this vision there is a resolve to reform the education sector in order to improve student learning.

This vision is reflected in a series of policy documents and is legislated in the 2014 National Education Law, which was amended in June 2015.

Policy

The policy intention to upgrade education provision is laid out in a number of key documents. Teacher education is central to all these upgrades. The most important foundational policy documents are:

- The **30-Year Long-Term Education Development Plan** (2001-2031) which aims to ‘uplift’ national education through a series of reform programmes including upgrading the teaching-learning processes and the teacher education system;
- The **Framework for Economic and Social Reforms (FESR)** (2012-15) which set out the government’s priority policies including upgrading teacher training and addressing teacher remuneration;²⁸
- The National League for Democracy’s 2015 **Election Manifesto** confirms the new government’s intention to continue focusing on teacher education to ensure a good education system.²⁹

Legislation

The overarching legislation informing delivery of the education system is the National Education Law (NEL).³⁰ This defines national education as the system to “uplift the language, literature, culture, art, tradition and historical heritage of all of the nationalities and guided education to reach the national modern development equivalent with the modern requirement and set up the improved ethic human resources with right all-round freedom thought”.³¹ The overall objectives for the national education system reflected in the NEL are summarised below.³²

The national education system should:

- Develop well-rounded citizens equipped with the intellectual capacity to think creatively and critically as well as physical strength, morality and sociability;
- Preserve the diversity of Myanmar’s culture and engender a union spirit and encourage preservation of the environment. The Law allows ethnic language as a classroom language and allows localised development of sections of the curriculum;

²⁶ This section of the curriculum framework document reflects the current policy environment. As new policies are developed this section needs to be up-dated to ensure the framework remains relevant to the national vision.

²⁷ Ministry of Education, Myanmar: Vision of Education System

<http://www.cesrmm.org/index.php/en/leadership1/ministryofeducation>

²⁸ Myanmar, ‘Framework for Economic and Social Reforms (draft): Policy priorities for 2012-15 towards the long-term goals of the National Comprehensive Development Plan’, 22 November 2012.

²⁹ National League for Democracy, 2015 Election Manifesto Section 4.v.

³⁰ Myanmar, National Education Law (Parliamentary Law No. 41) September 30, 2014 [amended June 2015] (ref. to as the NEL)

³¹ NEL Ch1. Art. 2 (g)

³² This summary looks predominantly at NEL Ch2. on National Education Objectives, Ch3. National Education Policies and Ch7. specifying curriculum and standards.

- Align with international standards in terms of competencies and access to resources such as up to date technologies;
- Be delivered through a decentralised system to ensure relevance and efficiency.³³

The NEL legislates that all teachers need to be qualified: it defines a teacher as an “educator who has qualifications for serving at a *specified level of education*”.³⁴ It states that it is the Ministry of Education’s responsibility “to produce teachers who can guide and carry out learning for the modernised developed nation and improvement of nationalities, taking into account the value of traditions and historical heritage”.³⁵ Under the law, “the Ministry and related ministries shall specify the duties and rights of teachers”³⁶ and ensure “there shall be no discrimination among the teachers in any subjects at each education level”.³⁷ They are also listed as responsible arranging “for upgrading teachers’ quality and giving them international exposure”.³⁸ A Teacher Education By-Law is being drafted.

³³ The National Education Law 2014 states that state/regional administrations are responsible for developing 20% of the school curriculum to meet the needs of the local population.

³⁴ NEL Ch2. Art. 2 (i)

³⁵ NEL Ch5. Art.20 (c)

³⁶ NEL Ch9. Art.53 (a)

³⁷ NEL Ch9. Art.53 (b)

³⁸ NEL Ch9. Art.52

LEARNING OBJECTIVES AND OUTCOMES³⁹

The overarching aim of the four-year degree course is to prepare student teachers to be effective, professional practitioners, equipped with the appropriate competencies (knowledge, skills, values, attitudes and their successful application in teaching-learning situations) required to deliver high impact teaching to the appropriate age group in highly variable learning environments. The four-year degree has been introduced to meet international standards and allow Myanmar's population to become an educated workforce, able to compete in the global economy.

The role of the Education Colleges (ECs) is to ensure new teachers are ready and able to teach effectively in the classroom. Teacher education is a means to an end; the end objective is to improve the learning outcomes of pupils in Basic Education schools and as per the MoE vision “generate a learning society capable of facing the challenges of the Knowledge Age”.⁴⁰

The objectives for an Education College (EC) are to:⁴¹

1. To *train and produce* full-fledged teachers to carry out their duties and responsibilities in the construction of the new Education system, whom the parents of their pupils and the working people in their community can look up to, trust and respect;
2. To *train and produce* teachers who can behave and conduct themselves well to become good teachers in conformity with the Myanmar way of life;
3. To *train and produce* competent teachers who are well versed in the subjects they are to teach;
4. To *train and produce* teachers who possess adequate knowledge of educational principles and teaching techniques which will enable them not only to teach effectively but also to promote wholesome relationships between the pupils and their homes, their schools and community;
5. To *train and produce* teachers who can assume leadership possessing a thorough knowledge and understanding of the principles of all round harmonious development of human personality in education, and;
6. To *train teachers* to encourage in research work that would contribute to widen the horizon of the knowledge of teachers to improve their intellectual and professional levels.

Teacher education is to *train and produce* teachers with the relevant competencies to be ‘classroom ready’. As such, the learning objectives and outcomes set out in this framework for ECs align directly with what is expected in the classroom. These expectations are laid out in the National Curriculum Framework for Basic Education.⁴² The EC Curriculum Framework directly mirrors the Basic Education Curriculum Framework in terms of learning objectives and outcomes, subject areas and teaching methods. The Basic Education Curriculum

³⁹ This section of the curriculum framework document reflects the current learning outcomes and objectives documented. As these develop and change this section needs to be up-dated to ensure the framework remains relevant to the national vision. This will be particularly important in regards to the national qualifications framework and any shared ASEAN standards.

⁴⁰ Ministry of Education, Myanmar: Vision of Education System
<http://www.cesrmm.org/index.php/en/leadership1/ministryofeducation>

⁴¹ Issued by Department for Teacher Education and Training (DTET) [these were originally drafted and distributed to the ECs before the recent restructure and therefore are referenced to the former department responsible for Teacher Education, the Department for Education Planning and Training (DEPT)]

⁴² Myanmar National Curriculum Framework for Basic Education (5th version) Approved: May 2015

Framework emphasises the need for the all-round balanced development of the individual, and in line with the National Education Law places emphasis on the importance of good citizenship, appreciation of the cultures, customs and traditions of Myanmar’s range of national groups, the development of critical thinking skills, effective communication and social interaction, and respect for the natural environment. It prescribes that schools provide a supportive learning environment that encourages reflection, sharing and a methodology that makes learning relevant to pupils’ daily life by linking learning to prior knowledge and contexts. This provides the starting point for this curriculum framework.

By the end of the four-year degree course, a student teacher is expected to meet the minimum requirements for the ‘beginner’ level of the Teacher Competency Standards Framework (TCSF).⁴³ A competency standard describes what a teacher should be able to do and the standard at which they should be able to do it. It refers to how a teacher uses their knowledge, skills and values together to perform effectively.⁴⁴

The competency standards provide the basis of this curriculum framework for pre-service training and all subsequent professional development in-service programmes. By articulating the expectation of a teacher, it provides the mechanism to professionalise teaching.

The expectations of a teacher are organised into four domains:

- Professional knowledge and understanding
- Professional skills and practices
- Professional values and dispositions
- Professional growth and development

Each domain refers to a complex combination of knowledge, skills, understanding, values, and attitudes.⁴⁵ Each domain is organised by areas of competence for which the competency standard is expressed as a concise statement with accompanying descriptors of the expected minimum requirements to be achieved by all teachers.

Table 2: The four domains in the Teacher Competency Standard Framework

Domain 1: Professional Knowledge and Understanding
This domain centres on the information that teachers should know and be able to demonstrate. It encompasses the knowledge required for teaching different ages and stages and level-appropriate subject content competency. Inherent in any focus on subject competency is the necessity to understand how students learn and how they can be effectively taught in the key learning areas. Underpinning all competency standards in this domain is the knowledge of educational policy and school curricula for Myanmar, along with its aims, objectives and developments.
Domain 2: Professional Skills and Practices
This domain deals with what teachers are able to do. The teachers’ professional knowledge and understanding is complemented by possession of a repertoire of teaching strategies for different educational contexts to meet the needs of individual students as appropriate to different subject

⁴³ The Myanmar Teacher Competency Standards Framework (Draft 2.0, 2017)

⁴⁴ A competency-based curriculum in contrast to a content-based curriculum reflects the international trend in ensuring teachers are not only knowledgeable but are equipped with the skills and disposition (attitudes and values) to share knowledge with pupils effectively. Both regionally and globally, there is a focus not only on establishing clear sets of competency standards for teachers but a change in curriculum with more focus on practicing teaching whereby student teachers get the opportunity to integrate knowledge, skills and disposition together. The key difference between a competency-based and content-based curriculum is that the outcome is the ability to teach rather than being just knowledgeable of teaching. See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p. 36

⁴⁵ European Commission (2013), *Supporting teacher competence development for better learning outcomes*. European– Education and Training

areas and stages of schooling.

Domain 3: Professional Values and Dispositions

This domain refers to the ideas, values and beliefs that teachers hold about education, teaching and learning. It is underpinned by the values expressed in the Myanmar National Education Law and reflects the mutual understanding by teachers and the community about the Myanmar teacher – Teach students to be disciplined, Teach and explain to your best, Teach everything known, Appreciate students and Stand up for students whenever needed.

Domain 4: Professional Growth and Development

This domain deals with teachers' continuing professional growth and development. It incorporates teachers' habits, motivation and actions related to their on-going learning and professional improvement. It advocates the importance of all teachers being aware of their role as leaders within the community and highlights the need for active research to support teachers' classroom performance and continuing professional development.

As a 'beginner' teacher, teacher graduates will be expected to "be able to teach the prescribed curriculum to students at the specified stage of schooling and assess levels of student achievement...[They should have] subject knowledge and skills, pedagogical knowledge, positive attitude towards children and youth and a commitment to education and teaching".⁴⁶

A key outcome of the four-year degree course is that student teachers become skilled at teaching a specific age-group. A different style of teaching is required for the cognitive stages of primary-school aged children compared to middle-school aged children. The four-year degree course is divided into specialist tracks to allow student teachers to master the relevant teaching skills.⁴⁷

⁴⁶ The Myanmar Teacher Competency Standards Framework (Draft 2016) p.11

⁴⁷ As of August 2016, the government announced that the previous ladder based promotion system, which saw the education levels as a hierarchy, was to be abolished. It recognized that promoting experienced teachers up to middle and then high school undermined the teaching quality of primary school to the detriment of children mastering basic foundational skills such as literacy and numeracy.

STRUCTURE OF THE TEACHER EDUCATION SYSTEM

Please note: It is important to remember that this document depicts the teacher education system as it could be in the future. It presents a scenario based on the assumptions that certain policy decisions will be made (See Table 1). The proposed structure is informed by recent reviews of Myanmar's teacher education system and SABER's teacher policy analysis of high performing education systems;⁴⁸ specific areas need to be further reflected on when drafting the proposed teacher policy.

The teacher education system prepares teachers to teach the national curriculum in Myanmar's Basic Education system.

1. The Basic Education system includes kindergarten through to Grade 12 (children aged 5 to 18).⁴⁹ The teacher education system includes all components of the teacher training from kindergarten through to high school.
2. All Basic Education schools are under the jurisdiction of the Department for Basic Education (DBE).
3. In primary schools, Myanmar language is the official medium of instruction but ethnic languages can be used in classrooms to support learning where needed.
4. In middle schools Myanmar language is the official medium of instruction for all subjects other than Grade 9 Mathematics and Science which is taught in English.
5. The targeted pupil teacher ratio (PTR) is 30:1 for primary and 27:1 for middle school.⁵⁰

Flexible learning pathways

There are multiple ways to train to become a teacher but the expectation is that all teachers are degree qualified having completed a minimum of a four-year degree course.^{51,52}

Degree-level teacher education courses are delivered at both university and college level.

1. Universities of Education (UoE) provide a five-year B.Ed qualifying teachers to teach in high school;
2. University of Development of National Races (UDNR) provides free teacher training to ethnic minorities;⁵³
3. Education Colleges (ECs) provide a four-year B.Ed qualifying teachers to teach in primary and middle school; the ECs are affiliated to a UoE.

⁴⁸ Systems Approach for Better Education Results (SABER) is a World Bank initiative that has produced a framework for building more effective teaching professions. In addition to the framework, SABER carries out country specific analysis and is currently carrying out an analysis of Myanmar's teacher policies. (See references)

⁴⁹ **Assumption:** this structure is presented based on the assumption that the newly proposed structure will be rolled out in 2016-17

⁵⁰ Myanmar Education for All 2015 Review Report, p. 40:

<http://unesdoc.unesco.org/images/0022/002297/229723E.pdf>

⁵¹ Four years is the international benchmark for teacher education and is the length of time needed to master subject knowledge, the teaching-learning process and gain sufficient classroom practice. This is supported by research by both Levine (2006) and Scannell (2007). See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p.35

⁵² The decision on a four-year degree needs to take into consideration two important factors 1) Teacher demand; increasing teacher education to a four-year programme improves both quality and status but imposes a time lag on recruiting new teachers; 2) Teacher supply: can student teachers typically afford to study for four-years? One option here is to introduce a scholarship programme for students from low socio-economic backgrounds.

⁵³ This university is run by the Ministry of Border Affairs and uses a similar curriculum to the UoEs but includes additional 'special co-curricular' subjects: traditional medicine, martial arts and military training. It awards Master (in Education and in Philosophy), B.Ed and teacher training diploma.

The teacher education system aims to be flexible and provide different learning pathway options. These can be categorised as concurrent or consecutive.⁵⁴ Although all teachers are expected to be degree qualified they can qualify in a subject other than teaching and then get a post-graduate diploma.

1. **Concurrent** is when student teachers study subject matter and pedagogy at the same time as part of an education focused degree. This is the focus of this curriculum framework.
2. **Consecutive** is when student teachers first graduate in a subject-specific degree (subject matter) and then study how to teach pupils.^{55 56}

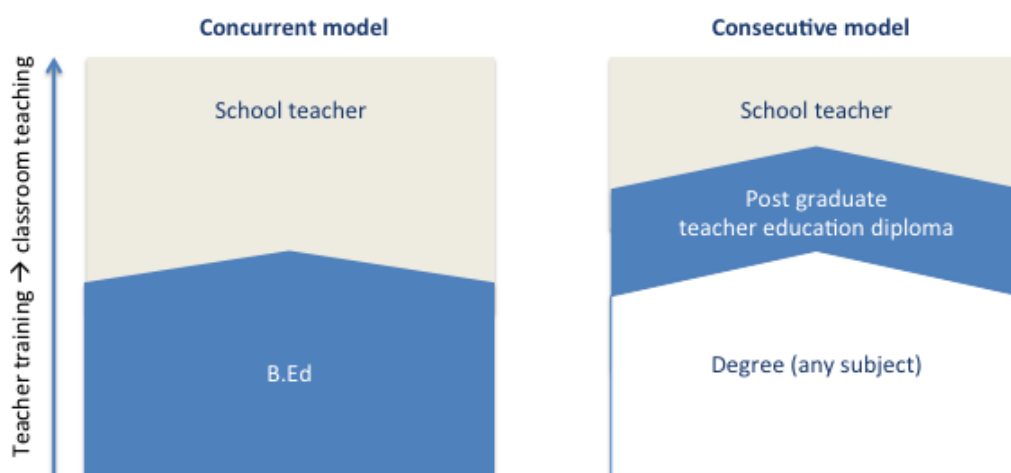


Figure 2: Overview of different teacher education learning pathways

The ECs only provide the four-year B.Ed and the post-graduate diploma. Any further degree qualifications, such as a Masters or PhD or the five-year B.Ed for High school teachers are only delivered in the UoEs.

In Myanmar’s teacher education system, student teachers have to specialise in a specific education level: primary, middle or high school. The specialist learning pathways ensure that teachers can become expert in a specific stage of a child’s development.

3. To train as a primary or middle school teacher, a student teacher must attend an EC for four years (kindergarten teaching is included as part of the primary school track).
4. To train as a high school teacher, a student teacher must attend one of the UoEs for five years; the fifth year is focused on action research.

⁵⁴ The broad distinctions of the two pathway options are based on comparative research carried out under SABER- Systems Approach for Better Education Results [World Bank (2012). *What matters most in teacher policies? A framework for building a more effective teaching profession: SABER, USA*] See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p.35

⁵⁵ There are a number of different options available to delivering concurrent courses; online, correspondence, township level and EC residential. These courses provide flexibility in teacher training but it is recommended these courses include a minimum of 12 weeks’ practicum to ensure adequate teaching practice. The course materials can be based on those used in the concurrent model.

⁵⁶ This model of post-graduate learning reflects the popular PGCE model used in the UK. See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p.41

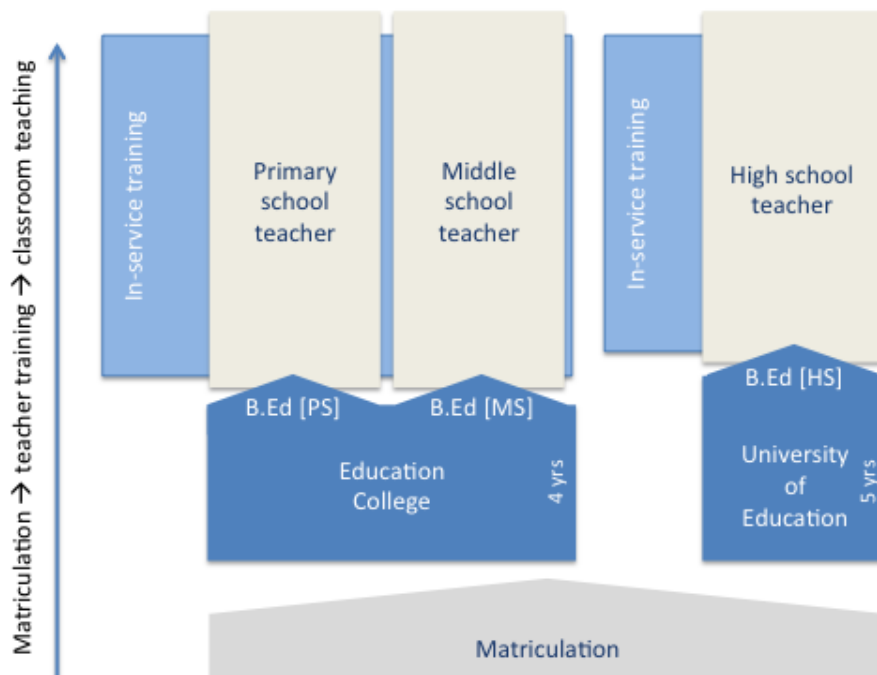


Figure 3: Overview of teacher education specialist pathways

To apply for the EC B.Ed (four years), candidates need a minimum score of 400 out of 600⁵⁷ in their matriculation exam (with marks of over 60 out of 100 in both English and Mathematics subjects).⁵⁸ The minimum matriculation score is designed to be sufficiently high to attract a high calibre of recruits yet low enough to ensure a sufficient number of candidates. They also have to sit an Education College entrance exam and interview.⁵⁹ The exam tests their basic knowledge and English proficiency while the interview tests their commitment to teaching.

To apply for the UoE B.Ed (five years), candidates need a slightly higher score of 450 out of 600. The difference in scores reflects the need for high school teachers to be able to teach high school level academic subjects and therefore the need to start from a strong foundational academic understanding.

The teacher education system is credit based. This means that to complete a degree course student teachers need to earn a certain number of credits. Credits are measured in credit units (CUs). Each CU is made up of a certain number of contact hours. To earn a credit unit a student teacher needs to attend the requisite number of contact hours and pass the module assessment.

Ensuring and assuring quality teachers

The teacher education system includes a number of mechanisms to ensure and assure the quality of Myanmar's teachers.

⁵⁷ This is the minimum score prescribed but if demand is high this pre-requisite can be increased; likewise if the score poses a barrier to enrolment, there needs to be a policy decision to reduce the score.

⁵⁸ The maximum score in the matriculation is 600 (100 per subject for six subjects). Each student has to take six subjects (Myanmar, English and Mathematics are compulsory and then there is an option to take science, mixed or arts). There is no data available on average matriculation scores but the pass-rate AY 2014-15 was 37.6%

⁵⁹ **Assumption:** the concept of raising the entry requirement is proposed here to help attract a high calibre of student as a teacher and thereby raise the quality standards of teachers.

Certification and teacher licencing

At the end of the training course, successful graduates receive a degree certificate that enables them to enter the teaching profession. The first year of service is then regarded as an 'induction year'.^{60 61} If they successfully pass this induction, they are issued with a licence to teach for five years.⁶² Every five years, each teacher needs to demonstrate they are maintaining the expected quality. This is measured against the Teacher Competency Standard Framework. Certification and licencing is processed and managed by an intra-department coordination and regulatory body outlined in the section on Governance.

Continuous Professional Development: in-service training⁶³

All qualified teachers are expected to continue learning throughout their careers through in-service training.⁶⁴ In-service training is a continuation of the pre-service training and aligns with the Teacher Competency Standards Framework (TCSF), which outlines the expectations for professional progression (beginner to experienced to expert to leader). On-going training ensures teachers can continuously refine and update their knowledge and skills and specialise in areas such as special needs or languages for example. It also provides the merit-based structure for promotion and salary decisions, providing teachers with an incentive to continually improve⁶⁵. To provide a further incentive to train and an additional assurance mechanism, the teacher licence renewal includes a link with the in-service model; to renew their teacher licence every five years, a teacher has to successfully complete a requisite number of in-service training modules.⁶⁶

⁶⁰ An induction year "is the bridge between initial teacher training and a career in teaching" [*Introduction for newly qualified teachers, England*, Department for Education). During the induction year, new teachers teach in a school classroom and receive a salary but also continue to receive mentoring and professional support. At the end of the year they are assessed against the relevant standards (see Teacher Competency Standard Framework)

⁶¹ **Assumption:** the concept of an induction year does not yet exist in Myanmar. The recommendation to include it here is based on a study of international best practice, which highlights the importance of supporting teachers in their first year, pre-licensure. A good international example is the Scottish Teachers for a New Era (STNE) at the University of Aberdeen where an extra two years of professional practice are incorporated pre-licensing. http://www.abdn.ac.uk/stne/documents/STNE_informationbooklet_may06.pdf See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p.35

⁶² **Assumption:** the concept of introducing a teacher license has been raised in policy discussions around quality assurance

⁶³ It will be important to consider the role of the ECs in in-service training provision once the restructure of the ministerial departments has been confirmed.

⁶⁴ **Assumption:** There is access to in-service training but this is not yet consistent or coordinated. The recommendation to promote on-going training is to ensure on-going teaching quality by ensuring teachers remain abreast of current teaching practices. There will need to be further policy decisions about how best in-service training should be delivered, how it will align with the promotional system and teacher licensing and how it will be funded.

⁶⁵ In-service training is regarded as an integral part of the teaching profession. A report by the OECD states: "no matter how good the pre- service education for teachers is, it cannot be expected to prepare teachers for all the challenges they will face throughout their careers". OECD Build a High Quality Teaching Profession; Lessons From Around the World, Background Report for the International Summit on the Teaching Profession (2011). See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p.34

⁶⁶ The concept of having specific professional development requirements to renew a teaching license is influenced by the teacher-licensing model in the US. Each state in the US has its own State department but the licensing requirements are a common component where within a set time, teachers have to complete a certain number of professional development credits. In Colorado for example all teachers must have completed 90 hours' worth of teaching training in a five-year period in order to renew their license: http://www.cde.state.co.us/cdeprof/licensure_renewalapp. See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p.34

In-service training allows a teacher education system to be flexible and responsive to changing needs. In-service training is especially critical during the transition period between the old and new curriculum. All new student teachers will be trained in their pre-service training according to the reformed policies and structure. All existing teachers will need to be trained in the same approach through in-service training.⁶⁷

Effective Governance⁶⁸

The governance model for teacher education has a centralised strategic component at Ministry level and a strong decentralised sub-national component. This ensures consistency in quality and direction, as well as local relevance and efficiencies at institution-level.

The basic governance is described in the diagram below. The diagram demarcates the two different Ministry departments involved and highlights the Department of Basic Education (DBE) regional administration at both State/Region level and township level. The direct relationship between the institutions and the regional administration under DBE is critical in sustaining the partnerships with Basic Education schools for teaching practicum. At township level there is a dedicated officer responsible for teacher education. This officer is responsible for coordinating the logistics for the practicum in DBE schools and for on-going in-service training.

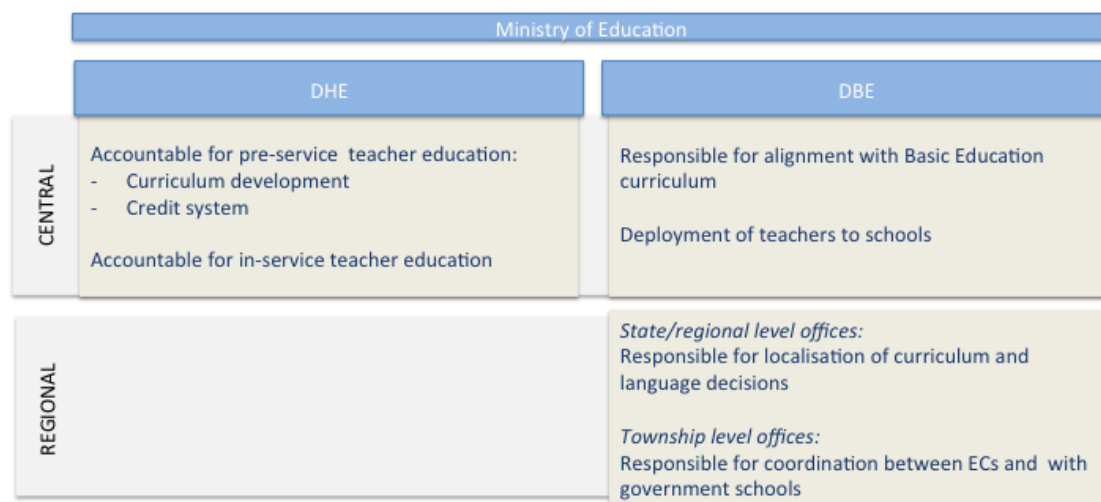


Figure 4: Overview of Ministry departments responsible for teacher education

To ensure coordination and quality assurance within the teacher education system there is a 'Teacher Education Coordination and Regulatory body', which reports into the 'National Education Level and Quality Assurance and Assessment Committee'.⁶⁹ The Teacher Education Coordination and Regulatory body comprises representatives from the two Ministry departments and from each of the associated institutions. The intra-departmental

⁶⁷ To upgrade to degree level, the new curriculum material needs to be converted into short-term competency-based modules that can be completed in-service. Where possible training, mentoring and assessment should be carried out at township level in order to reach the scale needed.

⁶⁸ This section on governance may need to be re-addressed once the restructure of the ministerial departments has been finalised

⁶⁹ The National Education Level and Quality Assurance and Assessment Committee is the evaluation committee that guarantees the individual education qualification level and state policies, educational planning and types of education systems NEL Ch5. Art.20 (c)

structure provides the link between expectations of what is being taught in schools (the basic education curriculum) and how teachers are being trained to deliver this.

The quality assurance system comprises regulations and outcome-based quality standards as defined in the Teacher Competency Standards Framework. These regulations and standards are shared across the teacher education system (both universities and ECs). The intention of the system is to ensure quality teaching translates into meaningful student learning outcomes.

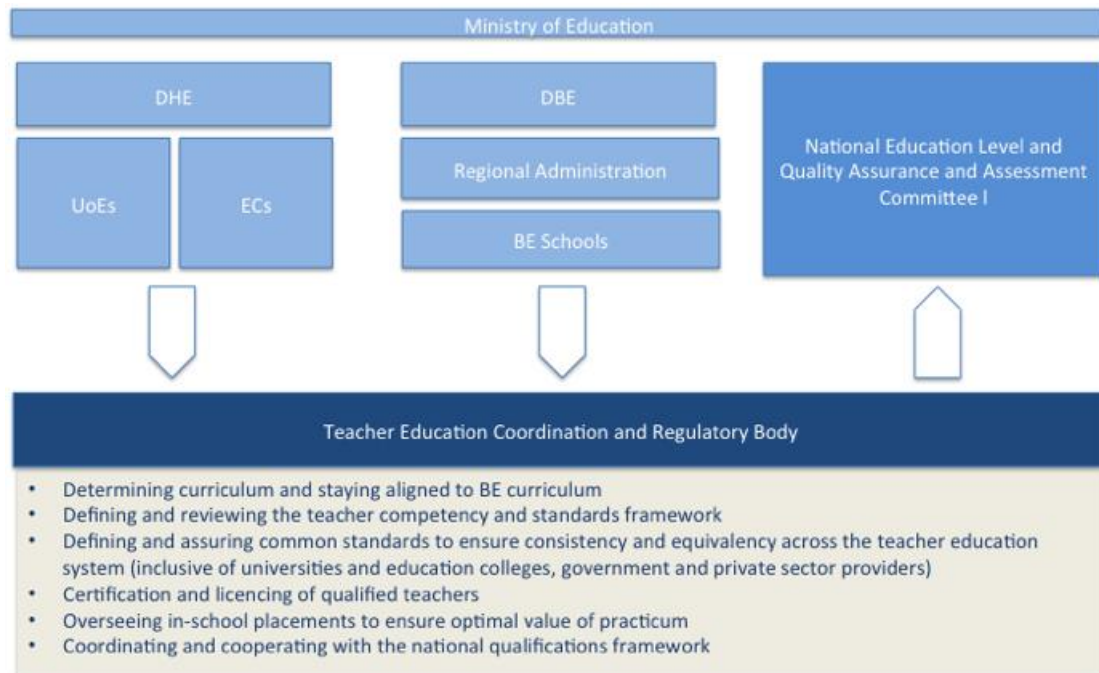


Figure 5: Overview of quality assurance structure for teacher education system

STRUCTURE OF CURRICULUM, LEARNING AREAS AND MODULES

Overview of the curriculum structure and learning areas

The four-year degree course curriculum for ECs is designed and structured to equip student teachers with the competencies needed to teach effectively in primary and middle school classrooms.

The curriculum structure provides an integrated approach, where teaching of subject knowledge and understanding educational theories are learned through a supportive learning process of relevant preparation and practical application and experience. The focus is therefore not just on subject content but also on the skills and attitudes needed to effectively apply content, skills and attitudes in teaching and learning situations, with specific age groups. Because the focus is on all components of a 'competency'- content, skills, attitudes and their adequate application, it is referred to as a competency-based curriculum.⁷⁰ Accordingly, a competency-based curriculum is learner-centred and adaptive to the changing needs of students, teachers and society.

The course has been designed as a spiral curriculum, which, means throughout the four years student teachers return to familiar concepts, each time deepening their knowledge and understanding.⁷¹ To achieve this, the course is divided into two cycles. The first cycle (Year 1 and 2) is repeated at a deeper level in the second cycle (Year 3 and 4) to enable student teachers to return to ideas, experiment with them, and share with a wider range of practices in the classroom, with the option to follow up on specific aspects of their teaching at a deeper level. The first cycle (Year 1 and 2) is equivalent in standards to a diploma qualification.

The diagram below provides an overview of the structure of the four-year curriculum. The curriculum is divided into four learning areas.⁷² Each of these is split into two modules. Each module is a distinct but related component within each learning area. The first module of each learning area covers Cycle 1 (Year 1 and 2) and the second covers Cycle 2 (Year 3 and 4). Although each learning area has a specific focus the curriculum content for each is inter-related and sequenced in a way that supports the overall learning process.

⁷⁰ As seen in the section on Learning Objectives and Outcomes, the overall aim is to get student teachers ready to teach effectively in the classroom. This curriculum proposes taking out the 'academic subjects', which are currently included primarily to prepare teachers for further study. This is not seen as a priority in the new structure and is problematic in that it overcrowds the curriculum. A key consideration is therefore the future role of the academic teacher educators (lecturers). They should be given an opportunity to train in relevant pedagogy to continue being a teacher educator.

⁷¹ The concept of a spiral curriculum dates back to the work of Jerome S. Bruner in the 1960s: 'A curriculum as it develops should revisit these basic ideas repeatedly, building upon them until the student has grasped the full formal apparatus that goes with them' Bruner, J.S (1960) *The Process of Education* p.13. See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p.43-44 which illustrates the use of a spiral curriculum in the Philippines reformed K-12 curriculum

⁷² See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p.36-37

Learning Areas	Cycle 1		Cycle 2	
	Year 1	Year 2	Year 3	Year 4
	Modules			
Educational Studies	M1.1: Understanding Education Theories Understand the theory and psychology of teaching and how these can be applied in the classroom		M1.2: Applying Educational Theory Deepen understanding of effective teaching and develop their own approach to classroom practise	
Curriculum and Pedagogy Studies	M2.1: Teaching the BE Curriculum Understand how to teacher subject matter content in a way that students can understand and learn		M2.2: Mastering Teaching Develop autonomy in designing and organising syllabi, lesson plans and new materials	
Practicum	M3.1: Practicing Teaching Demonstrate their pedagogic and subject expertise in a real classroom		M3.2: Teaching and Learning Prof. Practice Demonstrate their capacity to work independently as a professional	
Essential Skills	M4.1: Developing Essential Skills Develop core skill set to enable on-going effective learning		M4.2: Proficiency in Essential Skills Develop proficiency in core skills	
Reflective Practice	Reflective Practice Develop discipline of self-directed learning and habits of being a reflective practitioner		Reflective Practice Master discipline of self-directed learning and become a reflective practitioner	
	Progressive learning			

Integrated learning- each class references concepts learned in other modules that week

Figure 6: Overview of the four-year curriculum structure

In addition to the four learning areas there is a section on self-study and reflection. Every day, one hour is allocated to developing the discipline of self-directed inquiry and study, and the habit of reflection and through that, self-regulation. The intention is to support student teachers in taking ownership and feeling accountable for their own learning and self-development. This is an integral skill for becoming a reflective practitioner and for future professional development.⁷³

In Year 1 this daily session is supported through prescribed exercises to help student teachers explore the foundational practices; from Year 2 the student teacher is expected to manage their own time productively. The Teacher Competency Standards Framework (TCSF) is used as their reflective framework throughout.

Overview of specialist tracks

At the end of Year 1, student teachers can choose to specialise in either primary school or middle school teaching.⁷⁴ The primary school track includes kindergarten teaching.

The course is structured so that Year 1 is an exploratory year that covers core content (relevant to both primary and middle school teaching).⁷⁵ The student teachers spend time in both primary and middle schools during their Year 1 practicum, receive advice from teacher educators and have the opportunity to hear from earlier cohorts who have already gone

⁷³ See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p.45-46

⁷⁴ Myanmar's basic education system also includes 'post-primary' schools. These are primary schools that have been extended to include the first couple of years of middle school (normally up to Grade 7 although it can include Grade 8). There is no separate training track for post primary schools as teachers should be deployed to these schools according to which grades they will teach (i.e. either primary grades or middle school grades)

⁷⁵ This is in line with Hardman's suggestion in his Teacher Education Strategy Framework (Hardman, F. et al. (2013).)

through the decision process. This allows student teachers to make an informed decision on what education level they would be best suited to teach. The criteria for the final selection for each track is based on:

- the student teacher's age-group preference
- teacher demand for each educational level (this is jointly coordinated by DHE and DBE - please see section on the Teacher Education System Governance).

Those who want to specialise in middle school teaching must be proficient in English language as they are expected to use this as the medium of instruction for Grade 9 level Science and Mathematics lessons.

Overview of curriculum subject per specialist track

Primary school teachers train as generalist teaching staff. They are trained to effectively teach all primary school level and kindergarten level classes as specified in the Basic Education curriculum.⁷⁶ The focus of training is to ensure teachers can effectively teach early literacy and numeracy, the foundational skills needed for further learning.⁷⁷ The proposed subjects, with reference to the Basic Education Curriculum Framework are:

- Myanmar and Early Literacy
- English
- Mathematics
- Science (Biology, Physics, and Chemistry)
- Social Studies (History and Geography)
- Physical Education
- Life Skills
- Art (Performing Art and Visual Art)
- Morality and Civics
- Local Curriculum
- ICT (Information Communication Technology)⁷⁸

Middle school teachers train as subject area specialists. They are trained to effectively teach the three core subjects (Myanmar, English and Mathematics) and a choice of one elective subject area from the list below. Selection for the elective is based on three different criteria:

- the student teacher's subject area preference
- their Year 1 assessment marks
- demand for subject-teachers (again this is jointly coordinated by DHE and DBE)

Student teachers select one of the following subject areas as their elective:

- Languages (Myanmar, English, local languages)

⁷⁶ The list of subjects directly reflects the subjects listed in the Myanmar National Curriculum Framework (5th version) (May 2015). It is important to note that any changes to the Basic Education Curriculum Framework need to be reflected in the EC curriculums. [**Assumption:** this document reflects the proposed Basic Education curriculum framework; it is recognised that this is not yet implemented but presupposes this to be in place]

⁷⁷ See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p.42

⁷⁸ ICT (Information Communication Technology) is not listed a separate subject in the Basic Education Curriculum Framework but only referenced as a component part of the Local Curriculum. Teaching ICT however requires technical skills and is therefore seen as separate subject in regards to preparing effective ICT teachers. It should also be noted that as international trends demonstrate, ICT is seen as both a teaching tool and a critical 21st Century Skill. It is therefore assumed in this document that it will become increasingly relevant in all Basic Education schools.

- Mathematics (including Economy), Science (Biology, Physics, and Chemistry), ICT
- Social Studies (History and Geography), Art, Morality and Civics
- Life Skills, Local Curriculum and Physical Education⁷⁹

Middle school teachers specialise in subject-areas rather than individual subjects. This helps simplify teacher deployment and ensures pupils benefit from teachers who can draw connections between different subjects.

Figure 8 below illustrates the exploratory course content in Year 1 and then the split between core, specialist track content in Year 2, 3 and 4.

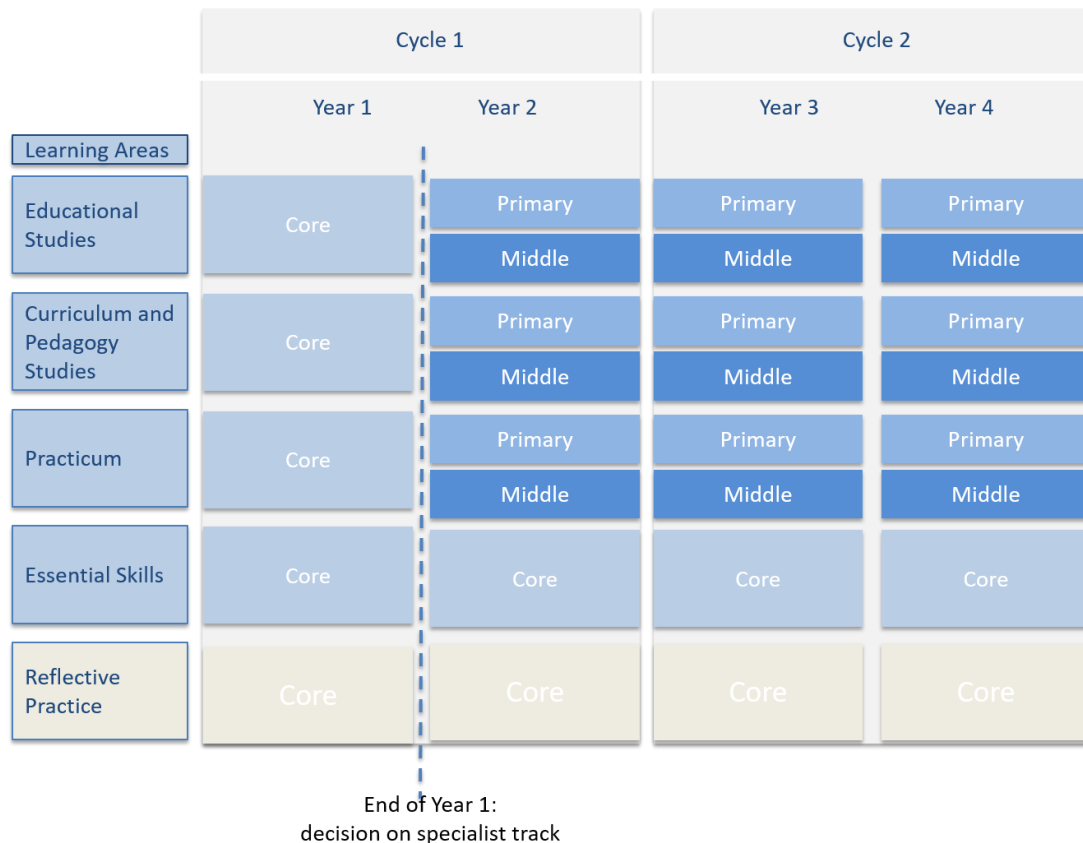


Figure 7: Overview of the specialist tracks in regards to the learning areas

Overview of the EC curriculum modular credit system

The EC degree course is credit-based. It mirrors the credit system in the UoEs. Any reforms undertaken at UoE level therefore need to be reflected in the EC structure and updated in the new EC Curriculum Framework.

Like the UoE system, a student teacher needs to earn 200 credit units to qualify with an EC B.Ed [PS] [MS] (A B.Ed in PS = Primary school and MS= Middle school).

Each semester a student teacher needs to earn 25 credit units (50 per year for 4 years = 200). Each successfully earned credit unit is saved in the credit bank.

⁷⁹ As per the Basic Education Curriculum Framework, co-curriculum subjects are no longer taught as separate subjects in middle school but are part of the Local Curriculum.

Each module is allocated a certain number of credit units based on the % of hours allocated to the module per semester. This % differs across the semesters depending on the shift in focus of the training i.e. in Year 1, Semester 1 a higher proportion of time is spent on Education Studies (Education Theory and Psychology) as student teachers are introduced to the basic concepts of teaching; as they start developing their own styles this number reduces with more time spent on teaching practice. To earn the requisite credit units, the student teacher needs a minimum of a 75% attendance rate.

Credits of subjects are based on time allocation in primary school and middle school curricula⁸⁰. The credits earned in Cycle 1 is equivalent to diploma standard and the credits then earned in Cycle 2 is degree standard.

The outline of the credit system is provided in Annex 2. In this outline each learning area is coded based on an abbreviation of its title:

ESk	Essential Skills
ES	Educational Studies
CPS	Curriculum and Pedagogical Studies
Pr	Practicum
RP	Reflective Practice

Each module is then coded based on the code for the relevant learning area, the relevant year and the relevant semester:

	Year 1	Year 2	Year 3	Year 4
Semester 1	1001	2001	3001	4001
Semester 2	1002	2002	3002	4002

For example: ESk 1001 = Module for Essential Skills Year 1 Semester 1

Overview of the timetable

The four-year course will be delivered through eight semesters. Each semester is approximately 100 days including a compulsory number of days of practicum per semester. The majority of teaching periods will last 60 minutes while some will be 90 minutes to ensure sufficient time for activities e.g. science practical classes. Each week there are up to 30 teaching periods and a daily 60-minute session for self-directed study and self-reflection⁸¹.

⁸⁰ Myanmar Basic Education Curriculum Framework

⁸¹ As noted in the Curriculum Review, the overloaded curriculum was one of the key challenges in training effective teachers. See UNESCO STEM Education College Curriculum Review (2016). p.29. There is an expectation of too much subject matter content in too little time. This new structure proposes that each student teacher has more time to develop their understanding of how to teach specific areas. For the middle school track, the introduction of the subject elective allows them to develop specialist knowledge in one area. In the primary school track the number of subjects is not reduced but the level of content within each subject has been reduced and integrated across learning areas to support learning uptake.

Table 3: Timetable for four-year course

No. of years	4 years
No. of semesters	8 semesters (2 a year)
No. of days per semester	100 days (20 weeks)
No. of instructional hours per week	30 hours
No. of instructional hours per day	6 hours
No. of self-study/reflective practice hour per week	5 hours

No of hours per week	Year 1		Year 2		Year 3		Year 4	
	S1	S2	S1	S2	S1	S2	S1	S2
Educational Studies	Understanding Educational Theory				Applying Educational Theory			
	10	6	11	7	7	7	7	6
Curriculum and Pedagogy studies	Teaching the BE Curriculum				Mastering the BE Curriculum			
	16	20	17	21	21	21	21	22
Essential skills	Developing Essential Skills				Proficiency in Essential Skills			
	4	4	2	2	2	2	2	2
Self study and reflection	5	5	5	5	5	5	5	5
Total hrs per week:	35	35	35	35	35	35	35	35

The Practicum module is not included here as that does not integrate with the weekly timetable

Figure 8: Breakdown of hours per week per module for the four-year degree

In terms of the timetable, each learning area will have allocated periods. Because of the integrated approach to training however, all learning is designed to be inter-related. What is learned in the *Understanding Educational Theory* module class for example will be directly referenced in the *Teaching BE Curriculum* module class.

The amount of time allocated to each learning area differs over the different semesters. This is due to the increased time spent in practicum and the progressive nature of the training delivered.

Overview of the modules

This section provides a brief rationale and an overview of the content for each module. The more detailed rationale for each unit and time allocations is provided in the curriculum and the subject syllabi (see Figure 1 in the Introduction).

Further details on the module content can be found in Annex 2.

CYCLE 1: Years 1 and 2

The first two years of the degree course covers Cycle 1. During these two years, student teachers are introduced to teaching concepts and are able to explore these concepts through practice. At the end of Year 1, student teachers make their decision on whether to specialise in primary or middle school teaching.

Educational Studies (ES)

Module 1.1 Understanding Education Theories

This module introduces student teachers to the theoretical foundations of pedagogy and childhood development and *how* this can be applied in the classroom.⁸²

Teaching is a complex activity with multiple things happening at the same time in any one lesson. Teachers are often expected to come to decisions on the best use of theirs and their pupils' time, by weighing up a number of competing concerns and overlapping sets of factors, on an almost instantaneous basis. Successful teachers are often not even aware of the process they have been through to determine the actions they take in the classroom, as they are responding to events based on the experience they have gained previously. Student teachers need support in developing this instinct for themselves.

As the EC curriculum adopts an integrated approach, the educational theories and psychologies are taught by applying them directly to class-based situations. Student teachers learn about how and why the theories and psychologies are relevant by applying and practicing them in their classrooms.

This module is organised according to a framework of four inter-related domains that categorise teaching theories deemed conducive to learning.⁸³

- Unit 1: Planning and Preparation
- Unit 2: Creating a Learning Environment
- Unit 3: Developing Learning Strategies
- Unit 4: Professional Responsibilities

The content in Year 1 (the exploratory year) is applicable to all student teachers. From Year 2 onwards the content differs for the primary and middle school tracks as the theory and learning psychologies studied are age-appropriate. The only shared lessons are those for Unit 4 on Professional Responsibilities.

Curriculum and Pedagogical Studies

Module 2.1 Teaching the BE curriculum

This module provides the opportunity for student teachers to integrate educational theory and psychologies, subject knowledge and knowledge of pedagogies. It provides student teachers with the opportunity to develop their confidence in relevant subject matter knowledge and learn how to translate this knowledge in a way that pupils will be able to understand (pedagogical content knowledge).⁸⁴ It allows them to learn, explore and practice

⁸² This module builds on the existing subjects of Education Theory and Education Psychology but delivers the content through a practical lens i.e. how educational theory can be used directly in the classroom.

⁸³ The four domains are based on a Framework for Teaching (FtT) designed by an internationally recognised expert in the area of teacher effectiveness, Charlotte Danielson. Danielson has developed a research-based set of components of instruction, grounded in a constructivist view of learning and teaching that looks at planning and preparing for teaching, creating a learning environment, delivering effective teaching and meeting the responsibilities of being a teaching. The framework has been used extensively in 20 different states within the US who have used the framework in conjunction with existing standards and curriculums <https://www.danielsongroup.org/charlotte-danielson>

⁸⁴ The categorisation of different types of knowledge is based on Stulman's original taxonomy (1986). He identified a 'pedagogical content knowledge', which is a unique knowledge area specific to teaching. It refers to the critical ability to how to teach a subject, not just the subject knowledge itself. Many international examples are looking to combine subject knowledge teaching with this closely related component but in this framework,

how they can adjust subject matter content and their delivery to meet the needs of the pupils in their classes.

This module, on average, is allocated more than 50% of instructional time.

Within the context of their pupils' level of learning, student teachers will look at the specific subject areas and determine strategies for the organisation of content, developing higher order thinking, and encouraging pupils to demonstrate core practical skills, and preparing them to develop the behaviours and attitudes that will enable them to succeed in their future beyond schooling.

The key focus of this module is to establish an understanding of what pupils will be able to know and do, within the content and activities of specific subjects. Student teachers will be asked to analyse subject materials as well as developing an understanding of how to deal with common subject misconceptions and topics that can be described as hard to teach.

The module is organised by the list of subjects specified in the Basic Education curriculum for each level. In Year 1, all student teachers will learn how to teach content that is relevant to both primary and middle school. From Year 2 onwards, the different specialist tracks directly reflect the expectations in the Basic Education Curriculum Framework for each education level.

Table 4: List of subjects

Year 1:	Year 2:	
Exploratory year <i>Academic standard equivalent to primary and middle school level</i>	Primary school track <i>Academic standard equivalent to primary and middle school level</i>	Middle school track <i>Academic standard equivalent to middle and high school level</i>
Myanmar	Myanmar and Early Literacy	Core: Myanmar and Literacy Recovery
English	English	Core: English
Mathematics	Mathematics	Core: Mathematics
Science	Science	1 elective subject area:
Social Studies	Social Studies	- Languages (Myanmar, English, local languages)
Art	Art	- Mathematics (including Economy), Science, ICT
Morality and Civics	Morality and Civics	- Social Studies, Morality and Civics, Local Curriculum
Life Skills	Life Skills	- Art, Life Skills, Physical Education
Physical Education	Physical Education	
Local Curriculum	Local Curriculum	
ICT	ICT	

the module is separated into two component parts to ensure the critical confidence level needed in subject matter for effective teaching (this again aligns to Hardman's Strategy Framework) See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p.36

Student teachers will be asked to design, plan, implement and evaluate lessons; producing engaging, innovative and productive lessons for specific subject areas, to meet the needs of different pupils within their classes.

Practicum

Module 3.1 Practicing Teaching

The practicum⁸⁵ is central to this course as it provides the focus for the previous two modules. Student teachers are expected to demonstrate their understanding of the course content by applying it effectively in real-life classrooms.⁸⁶ For this reason, the practicum is the focus of the course assessment. The assessment of practicum makes up 50% of the overall assessment marks.

As part of the practicum, student teachers are expected to evaluate their own practice against an 'Assessment for Learning' criterion and prepare a portfolio of their work that includes a day by day journal of their teaching experience, ideas they have developed and how they have impacted on their pupils' learning.

In Cycle 1, the practicum is delivered through three separate models;

- Practice schools (day visits)
- Partner schools (short-term placements)
- School placements (longer-term placements)

The student teachers are expected to follow a progressive timetable, with the expectation that they will take on a more autonomous role on each successive visit.

The ECs work in close partnership with their participating schools to optimise the value of the student teachers' experiences. The schools need to be able to set a good example to the student teachers, and be able to foster the growth and development of their assigned student teachers.⁸⁷

The objective of the practicum is for the student teachers to have the opportunity to practice teaching in a controlled but real environment. It is therefore important that the practicum is scheduled at a time when they can actually teach. Practicum should not be scheduled between February and May when schools are either focused on examinations or are on school holidays.

⁸⁵ The use of the word practicum has been used to replace 'bloc teaching' in this context as not all the practice opportunities provide are delivered as 'bloc' periods of time. In the proposed system the initial practicum will be individual days in the practice schools.

⁸⁶ The design of the practicum modules has been influenced by international best practice examples- the progressive increase in involvement and responsibility is influenced by an Australian model, the structure of the actual timetable is influenced by Singapore. See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p.39-40. The two critical aspects of best practice that underlie the model is the increased length and the need for more structured provision and mentoring.

⁸⁷ As explained in more detail in the Training Methodology section, there will be a requirement for participating practicum schools to provide support to their colleagues aspiring to join the teaching profession. These schools will require additional and specific support on the execution of this programme. It is anticipated that they will play an important role in terms of the development of professional learning communities, both in the schools themselves, and with each cohort of student teachers as they develop their own career pathway.

Table 5: Practicum in Years 1 and 2

Practicum: Teaching Practice			
Year 1	Semester 1	Practice school	5 days (over 5-month period)
		Partner school	10 days (2 separate weeks)
	Semester 2	Partner school	15 days (3 separate weeks)
Year 2	Semester 3	School placement	25 days (5 consecutive weeks)
	Semester 4	School placement	25 days (5 consecutive weeks)
TOTAL:			80 days

Essential Skills

Module 4.1 Developing Essential Skills

The objective of this module is to ensure future teachers are confident in the essential skills needed to teach effectively and are able to model 21st century skills.⁸⁸ The module provides the opportunity for student teachers to focus on developing their own skill sets so that they can apply them in the classroom. In Year 1, this module is allocated four hours a week, in Years 2-4, this module is allocated two hours a week.

The essential skills included are:

1. Communication skills
 1. Verbal communication and presentation skills
 2. Written communication and grammar
2. Research skills
 1. Navigating resources
 2. Reading skills
3. Problem solving and numeracy skills
4. Leadership and teambuilding skills
5. ICT skills
 1. ICT literacy
 2. ICT in the classroom
6. Languages
 1. English
 2. Local ethnic languages (decided at regional level)

CYCLE 2: Years 3 and 4

The beginning of Year 3 represents the halfway point of the degree course and the beginning of Cycle 2.⁸⁹ Student teachers are required to build on the concepts learned previously to deepen and broaden their knowledge base, skills and attitudes. On the basis of a gradual release model applied to this cyclical programme, there will be a distinct shift of expectations, as student teachers are encouraged to take on more responsibility for directing their own learning as the course progresses.

⁸⁸ '21st century skills' is an umbrella term used to describe the range of skills needed for students to use knowledge effectively in real life situations. They reflect the demands of the 21st century where skill sets need to be more diverse and adaptable and focus on application, not just retention and repetition of knowledge.

⁸⁹ The split between Cycle 1 and Cycle 2 provides a built-in structure for a flexible and incremental transition. Cycle 1 (diploma level) can be could be the initial focus in the ECs, while the course content for Cycle 2 (degree level) can be used to up-grade existing teachers through in-service training.

Education Studies

Module 1.2 Applying Educational Theory

This module builds on the pedagogic theory and techniques established in Cycle 1 and enables student teachers to further investigate and apply educational theory to their own practice.

Student teachers are expected to actively contribute to the course inputs for this unit, using relevant supporting evidence to explain their decisions about how they prepare their classes and support the development of learning with individual pupils within their class. Individuals, or groups within a cohort, are asked to analyse a particular aspect of teaching in-depth and share their conclusions with the rest of the group. Their work is shared with their peers and kept as part of their Personal Portfolio and at the end of the four-year course, each student teacher is asked to contribute to a cohort tool-kit.⁹⁰ This is unique to each cohort and designed to help prepare the year group with a diverse set of resources and strategies they can use during their first year in teaching.

The organisation of this module is set out as four units;

1. Unit 1: Delivering effective lessons
2. Unit 2: Assessment for Learning
3. Unit 3: Action Research
4. Unit 4: Developing Professional Standards

Curriculum and Pedagogical Studies

Module 2.2 Mastering teaching

This module follows the same subject-based structure as Module 2.1. Using the BE curriculum content the student teachers analyse how to organise the syllabus, lesson structures and materials to ensure effective learning. They will learn to appreciate the importance of the sequence of learning and the need for pupils to engage with the content and take autonomy over their learning.

As part of this module, the student teachers are asked to analyse the specific needs of a particular group within the pupil population, (i.e. gifted and talented, special needs students, disaffected or reticent pupils, gender discrimination, resource constrained, multi-lingual) and develop solutions to some of the issues, that would then enable their pupils to participate successfully as part of an inclusive classroom.

Practicum

Module 3.2 Teaching and Learning Professional Practice

The focus of this practicum module is to prepare student teachers to take an active role in the schools they are visiting, and demonstrate their capacity to act responsibly and professionally as part of the school staff. The student teachers are expected to work through an increasing period of teaching practice over the two years and the expectation is that they will require less and less support from the participating schools as they approach their final practice.

⁹⁰ The cohort toolkit is a mechanism designed to help student teachers work together and share their work, building on what they collectively identify as the best examples

Teaching in a classroom is dynamic and challenging, and student teachers need to practice to develop their approach in how to respond effectively to meet the needs of their learners. Myanmar is also a diverse country and although much of the education system is centrally prescribed, each classroom will vary. The more exposure student teachers get to teaching pupils and practicing their skills, the more confident they will be and able to respond to different situations.

The student teachers should use this opportunity to test the theories and materials they have developed in previous modules on the course, and continue to determine how these could be improved. They will need to demonstrate their capacity for self-directed learning as part of this module, and the accurate assessment of their own performance will be a significant part of the success criteria on this module, on the basis that these are important skills for them to be taking into their first year of teaching.

Table 6: Practicum: Teaching and Learning in Years 3 and 4

Practicum: Teaching and Learning			
Year 3	Semester 5	School placement	15 days (3 consecutive weeks)
	Semester 6	School placement	15 days (3 consecutive weeks)
Year 4	Semester 7	School placement	40 days (half a semester)
	Semester 8	Partner school	20 days (4 consecutive weeks)
TOTAL:			90 days

Essential Skills

Module 4.2 Proficiency in Essential Skills

In this module student teachers are able to focus on becoming proficient in a specific skill.

Student teachers will choose one of the following electives:

- English language proficiency
- ICT proficiency
- Language teaching proficiency

The different options are available to all student teachers but:

- Primary school teachers are awarded preference in Language teaching proficiency as the issue of learning Myanmar as a second language is more prevalent in the earlier years of schooling. This includes a focus on early literacy.
- Middle school teachers are awarded preference in English language teaching proficiency as in Grade 9 English becomes the medium of instruction for Mathematics and the Sciences.

STANDARDS OF RESOURCES REQUIRED FOR IMPLEMENTATION

Teacher Educators (TEs)

Required skills

The TEs in the ECs are responsible for teaching the student teachers. TEs require the subject matter knowledge and the pedagogical skills to ensure that student teachers develop into effective and competent teachers ready to become productive members of the teaching profession. Teaching adult student teachers (18-year-old +) requires different skills from those needed to teach primary and middle school aged children. A different skill set is also needed to train students rather than teach them. To be effective trainers, it is essential that the TEs understand the difference between teaching children or adolescents and teaching adults and have the necessary practical skills to know how to train.⁹¹

In order to carry out their role, TEs are required to have:

- A degree-level qualification in either Education or a relevant academic subject;
- Proficiency in English;
- Prior experience in teaching in Myanmar schools at primary and/or middle school levels and in using the methodologies and school textbooks in the classroom;
- Competency in the use of ICT sufficient for resourcing ideas and materials relevant to their own teaching, using ICT in their training classrooms and for keeping records of student achievement and progress;
- The skills necessary to reflect on their activities and to employ meaningful self-evaluation of what they are doing and how they are doing it;
- The ability to communicate with school management and the classroom teachers working with student teachers during their school placements;
- Proficiency in carrying out effective classroom observations, giving constructive feedback, assessing student teacher performance and coaching and mentoring them so as to increase their teaching competence and confidence.

Intensive pre-service training focused on how to teach and train adult learners are mandatory for all newly recruited TEs. In-service training for continuous professional development is mandatory for all existing TEs.

Professional Competency Standards

The Teacher Educator competency standards provide the quality agenda and professional development framework. The teacher educator specific framework⁹² reflects many of the same attributes of the teacher's competency standards but incorporates the fact that:

- It is adults and not children who are the focus of TEs' activities;

⁹¹ The next phase of the UNESCO STEM project on Curriculum Reform in the ECs is to develop a capacity development plan for how to train the teacher educators in effectively delivering this new approach to teacher education.

⁹² **Assumption:** a TE competency standards framework does not yet exist but it has been raised in policy discussions because of the importance of ensuring student teachers are receiving the best quality training.

- Training is a major part of a TEs' role and supervision, classroom observation, constructive feedback and mentoring and coaching are key skills.

The framework also acts as a 'job description'. This ensures recruitment of the most effective faculty staff. It is important that the TEs are able to demonstrate the methodology and standards they are presenting to student teachers.

Continuing professional development

Continuing professional development is vital for TEs to keep abreast of the changes and advances occurring in the education sphere; this is particularly pertinent to the emergence importance of ICT. Professional development allows TEs to pursue areas of particular interest such as special needs education or language teaching, and to reflect on, and improve, their own knowledge and skills.

Professional development involves not just attending a short course on a particular subject. It encompasses a far greater range of activities and includes undertakings such as:

- Mentoring
- Professional Learning Communities
- Exchange programmes
- Partnerships with TEs in other countries
- Excursions to other ECs throughout the country
- Lectures from guest speakers
- Internal seminars and staff workshops where individual TEs are made responsible for facilitating activities

High standard continuing professional development requires the employment of qualified trainers to conduct intensive in-service training programmes for existing TEs. Training focuses on:⁹³

- Effective training of adults
- Best-practice teaching and learning strategies
- Effective curriculum and material development
- Age-appropriate teaching pedagogies for primary and middle school students
- English language proficiency
- ICT proficiency
- Student diversity (ability, motivation, gender, ethnicity, cultural background, socio-economic circumstances and geographical location)
- Involvement in on-going reform and action research

All TEs and education college staff are provided with professional development opportunities, and all have equal access to opportunities. Included in the competency standards for TEs is a compulsory requirement that all attend at least one professional development programme each year. Depending on their proficiency and needs, some TEs are expected to attend more than just the one.

⁹³ Please refer to the UNESCO Capacity Development Plan (2016) for more details about the recommended TE training modules and supporting analysis of the needs assessment.

Facilities

Capacity

The EC B.Ed is a four-year programme so at any one time there will be four cohorts of student teachers. Each EC needs to have the capacity of infrastructure and staff to accommodate the four cohorts of on-campus students plus any post-graduate students studying the diploma in teaching.

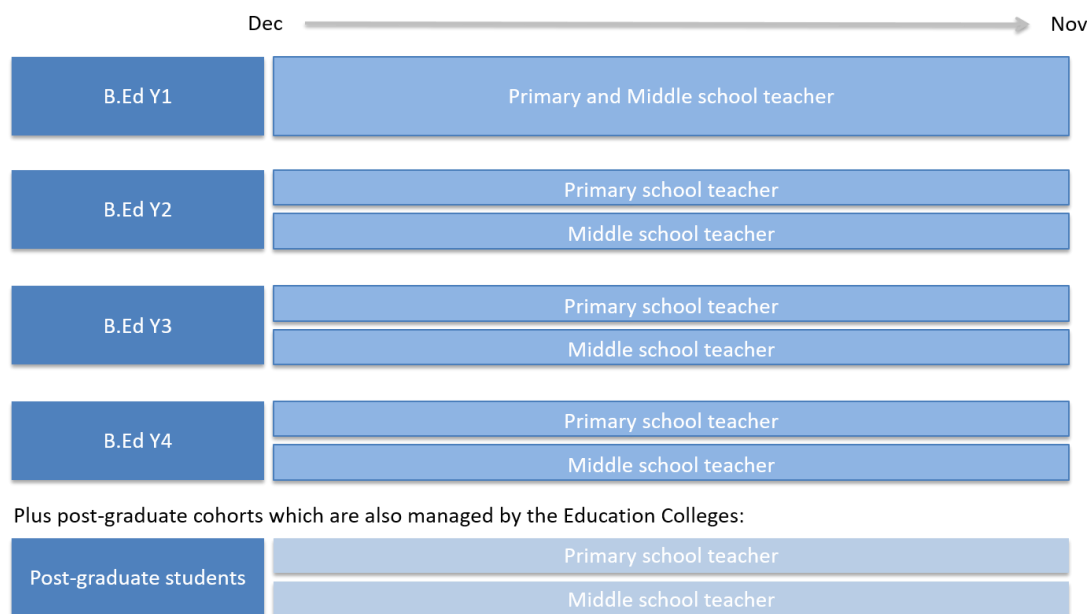


Figure 9: Overview of the different courses and cohorts delivered simultaneously in one Education College

Classrooms

Each education college needs a sufficient number of well-maintained classrooms to ensure that class-size and specialisation options are not compromised by lack of appropriate space. Class-sizes should not exceed 30:1.⁹⁴ Classroom furniture should be conducive to an interactive approach to teaching and learning with moveable furniture to facilitate group and project work.

Each classroom should be equipped to support multi-media teaching methods such as projectors and have a range of wall charts and pictures to enhance students' knowledge and skills and illustrate materials that are relevant and useful in primary and middle school classrooms.

Each education college should have functioning language laboratories and well-equipped science laboratories.

⁹⁴ **Assumption:** although the current pupil teacher ratio in ECs is low the actual size of classes is more often +50:1. If a more effective ratio of 30:1 is introduced there ECs may need to expand their existing capacity or split the current large classroom areas into smaller classrooms.

ICT (Information and Communication Technology)

All ECs should have adequate and up-to-date ICT facilities and reliable Internet connectivity to enable adequate access for both EC staff (non-teaching and teaching) and student teachers. ICT access enables non-teaching staff to be more efficient in carrying out their responsibilities and enables TEs to research and expand their knowledge of subject matter and methodology. Student teachers should be encouraged to use the Internet as a tool to carry out research, complete assignments, explore online teaching tools and resources and interact with other student teachers in teacher-based forums. All ICT facilities should be supported by qualified ICT-specialist TEs to help staff and students develop confidence in ICT literacy, and ICT technical support staff to maintain and repair systems.

Practice and Partner Schools

All ECs should have an affiliated 'practice school' on campus and established relationships with schools in the local vicinity and further afield.

- The **practice schools** operate as normal government schools but are managed by DHE and not DBE like other government schools. Situated directly on campus, the practicing schools provide on-site opportunities for lesson observations and real pupils to attend demonstrations by TEs.
- The **partner schools** are either government or private schools where student teachers can carry out their short-term school placements. The close proximity of the schools (max: 1.5 hrs. travel time to allow for daily commute) provides cost-effective opportunities for practice teaching in a real life situation.⁹⁵
- The **placement schools** are again either government or private schools but these are often further afield (where possible in the student teachers' home townships) and are used for the longer-term school placements.

Each partner and placement school has an assigned support teacher to mentor the student teachers. These mentors are trained in lesson observations, constructive feedback, basic mentoring skills and assessment as well as in the expectations of the EC curriculum so they understand the objectives. The training is offered as one of the in-service training modules.⁹⁶ The in-school mentors report directly to the TEs in the ECs.⁹⁷

An officer in the local township education office is responsible for coordinating the relationship with the government schools (both the township education office and the schools fall under the jurisdiction of the Department of Basic Education).⁹⁸

⁹⁵ **Assumption:** the concept of partner schools is a new idea based on the need to extend and better manage the practicum component of teacher education. Local partner schools allow practicum to be delivered in smaller blocks so that student teachers get more support and have to carry out specific objectives.

⁹⁶ **Assumption:** the introduction of specific mentoring training is new. It has been recommended as a high-value yet efficient approach to using existing resources to improve teaching quality

⁹⁷ See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p.40

⁹⁸ The MoE is currently working with the World Bank and DFAT on an initiative to expand township level education capabilities

Materials

All ECs should have access to a range of relevant curriculum materials, both direct instructional materials and materials that can be creatively used for teaching.

Curriculum and subject syllabus⁹⁹

Each education college should have the full course curriculum. The curriculum is a systematic description of what the course covers (the four different modules), the rationale for why each module is included, the intended learning objectives and how it should be delivered. The curriculum is designed centrally by the MoE and is based on what is required in the Basic Education curriculum. The syllabus is a breakdown of each module into the content of each unit, with each unit topic sequenced and scheduled.

Teacher educator guides

Every teacher educator should have access to teacher guides.¹⁰⁰ These teacher guides should be characterised by:

- Strategies for involving student teachers in critically analysing textbook materials;
- Techniques for using interactive and communicative activities;
- Suggestions of ways to adapt the curriculum to meet the needs of Myanmar students;
- Suggestions of how to use materials to be found in the local environment to enhance learning e.g. the creation of simple Science experiments and Mathematics activities;
- Information about a range of resources that could be accessed to complement textbook content.

Student textbooks

Every student teacher should have access to a full set of student textbooks. These textbooks should be characterised by:

- An overall learning objective and specific learning objectives for each chapter;
- Reference to actual content taught in Basic Education Curriculum for primary and middle schools;
- A focus on practical, inquiry based activities;
- Creative suggestions of ways to tailor information to meet the capabilities of individual learners and the inclusion of appropriate activities and extension exercises for abler students;
- A set of competency-based criteria for evaluating each chapter.

⁹⁹ The curriculum framework provides the overarching direction for the curriculum and through this the syllabuses. Both these need to be developed by a team of subject specific specialists and educationalists in alignment with the reforms within the Basic Education curriculum.

¹⁰⁰ **Assumption:** teacher educators currently do not have teacher guides and use the student teachers textbooks as their lesson guides. The recommendation to introduce teacher guides has been raised in review discussions and would provide teacher educators with a more relevant tool to support their teaching methods

To maintain the standards and relevance, both textbooks and teacher guides should be reviewed frequently. This review should be led by the National Curriculum Committee¹⁰¹ and should include feedback from both student teachers and TEs.

Basic Education textbooks and learning materials

All ECs should have complete and up to date sets of the Basic Education textbooks. These are an essential resource in material development and in simulating classroom like conditions.

Other resources

All ECs should be equipped with sufficient equipment and materials for delivering effective learning. Purchasing of these resources should be decentralised to each college to ensure local relevance and efficiencies.

Each EC should have well-stocked and up-to-date libraries with a range of books that enable students to develop not just subject and methodology knowledge and skills but to also further their personal development and interests.

¹⁰¹ NEL Ch7. Art.40

TEACHING METHODOLOGY

The teaching methodology reflects the integrated nature and competency-based design of the curriculum structure; the teaching techniques are practical and taught in a way that combines knowledge, skills, values and their effective application in teaching-learning situations. Where new concepts are learned they are then applied and reflected on.¹⁰²

1. Learn (plan what and how to teach)
2. Apply (practice teaching and learning behaviours)
3. Reflect (evaluate teaching practice)¹⁰³

The approach to teaching methods is underpinned by the learning theory referred to as 'constructivist'. Constructivists view learning as an active, constructive process where each individual learner is at the centre of 'constructing' his or hers own learning process.¹⁰⁴ The teaching methodology is informed by a trend analysis of high performing education systems which emphasises practical learning, but reflects the reality of Myanmar's large school-aged population, which often results in large class sizes and resource constraints. The focus of the methodology is therefore on the critical resource available: the effectiveness of the teacher.

Learn

To teach effectively, a student teacher needs to understand and explore knowledge of subject matter and of educational theory. This knowledge provides the basis of planning and preparing for teaching and the confidence to deconstruct knowledge into basic concepts for teaching.

To learn effectively, a student teacher needs to be able to connect new material to their **prior knowledge**. For example, in Year 1, Semester 1 the TEs will work within the context of the student teachers' preconceptions of the teaching-learning process stemming from their own experiences in schools. The learning process throughout the four years is designed to be **scaffolded**. This means that new concepts are progressively introduced in connection with old concepts, each time building upon prior learning.¹⁰⁵ The **spiral structure** (Cycle 1 and Cycle 2) of the curriculum allows for this scaffolded approach and for student teachers to return to concepts, each cycle analysing them in more depth.¹⁰⁶

Knowledge is learned through both instructional classes, led by the TEs and through **self-directed learning**. The latter is an important skill for later in-service training and develops a

¹⁰² This cycle of learning- applying- reflecting is a common cyclical approach to the learning process. The basic premise is based on the Kolb's Theory of Experiential Learning which emphasises that 'learning is the process whereby knowledge is created through the transformation of experience' Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development* (Vol. 1). Englewood Cliffs, NJ: Prentice-Hall.

¹⁰³ UNESCO core processes – Learning Teaching and Assessment:
www.unesco.org/new/en/education/themes/strengthening-education-systems/quality-framework/core-processes/learning

¹⁰⁴ See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p.45

¹⁰⁵ This concept of building on prior learning refers back to Piaget's Cognitive Theory. The easiest way to describe the theory is to see prior knowledge (schema) as building blocks helping to construct knowledge. See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p.45

¹⁰⁶ See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p.45

sense of self-discipline and self-motivation. This will be used progressively in Cycle 2 where student teachers are expected to take on more responsibility for their learning. The instructional classes will be delivered in an **open, creative space** where student teachers can explore new concepts, construct their knowledge base and develop requisite confidence. A relevant **mix of active and passive learning** will be used to ensure effective learning for all learners. Student teachers will be actively encouraged to ask **questions** and test ideas to develop **higher order thinking skills**. Using **differentiation techniques**, TEs will ensure all student teachers receive individualised learning and are able to develop their own teaching styles. A key approach used throughout the course will be **inquiry-based learning** where student teachers will be introduced to a new concept or new material and then work in pairs/groups/individually to investigate this further. In Cycle 2, student teachers will be expected to take this one step further and carry out an **action research assignment**. This provides them with the opportunity to systemically investigate and reflect on a specific component of their professional practice.¹⁰⁷

The teaching techniques used will be appropriate for **adult learners**.¹⁰⁸ The TEs will however also **model teaching styles and learning behaviours** relevant to teaching children and adolescents. Observing *how* TEs deliver age-specific content will support student teachers in developing their own practice and modelling the same techniques.

Apply

The objective of the course is to develop effective practitioners. A key emphasis is therefore on practicing teaching. Applying theory in practice creates the complex cognitive connections needed to equip teachers in making the multiple and immediate decisions faced every day in a classroom.

Two main methodologies are used throughout the course.

Simulated teaching experiences in the ECs: All modules use simulated lessons as the key methodology. Student teachers will take it in turns to prepare and deliver lessons to their peers. In some cases, these will be full 60-minute classes but more frequently this will be shorter periods within the 60 minutes (micro-teaching). Lessons will be delivered in pairs, groups and individually with the remaining class members making detailed observations and providing peer-feedback. Designing and using observation sheets is a core part of the training methodology as it directly applies theory to practice.

Real teaching experiences in school classrooms. Each year a minimum of 15% of instructional time is spent in real-life classrooms as part of the practicum. The practicum is structured so that student teachers take on increasing independence and responsibilities. For the shorter placements, the methodology is focused on observation and tracking an individual pupil's learning style (case-study). This progresses into short teaching sessions aimed at mastering specific objectives and finally longer periods where student teachers are responsible for delivering units of work. During all the practice sessions, student teachers

¹⁰⁷ Inclusion of an action research assignment recognises the importance of developing high-level research skills. In Finland, where all teachers have to be Masters holders, there is a significant emphasis on developing research skills to equip teachers to sustain their own autonomous systematic inquiry into their teaching practice. Tuovinen, J. E. (December 2008). *Teacher Professionalism– Viewpoints on Best Practice, the Case of Finland*. AARE 2008 Conference, Brisbane, Australia. See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p.46

¹⁰⁸ Adult learning differs from the way children learn and emphasises prior knowledge and experiential learning.

are expected to keep a daily diary to aid self-reflection and a portfolio of lesson plans, materials, units of work, assessment tools etc.

Good preparation, supervision and careful mentoring of these practice sessions are essential if student teachers are to benefit effectively from this methodology.

1. TEs are responsible for preparing the student teachers through lesson preparation and practicing delivery.
2. An assigned support teacher in each partner/placement school is responsible for supervising and mentoring the student teachers.

Reflect

Reflective practice skills are a key component of being an effective teacher and is a method through which to critically examine and self-regulate practice.

Every day, student teachers have a timetabled hour allocated to developing self-reflective practice as well as self-study. To help develop the habit of reflection, this initially is supported through exercises and activities asking probing questions into student teachers' day-to-day practice and progress. During the practicum, student teachers will be asked to strengthen their practice through keeping a daily journal initially reflecting on their practice and later reflecting on their actual learning.

Student teachers will be encouraged to **discuss and share their insights**.¹⁰⁹ This will be done within class groups and directly between individual student teachers and their TEs as part of the assessment methods. **Observing** and reflecting on their peers is a key part of the methodology. As a class, the student teachers will be expected to develop observation tools, progressively bringing in new concepts they have learned. The tools will be used during the simulated teaching sessions as the basis for providing feedback and reflecting on *how* the lesson could be made more effective.

Student teachers will be expected to work together as part of a **professional learning community** within their cohort to evaluate their strengths and limitations, setting themselves realistic goals with criteria for success. Sharing ideas and deconstructing personal experiences in the classroom is an effective method of learning and refining teaching skills. A key method used to formalise the idea of a learning community is the development of cohort toolkits; these are teaching supports developed collaboratively amongst a cohort of student teachers. The toolkit is designed to cover different areas of the curriculum and act as a best practice repository for each year group.¹¹⁰ The student teachers will be able to take these materials with them as they go into their first year of teaching (induction year).

¹⁰⁹ Discussing and sharing is an important part of reflection. Regional examples such as Hong and Singapore emphasise the importance of work-based conversations: 'It is the dialogues that occur around the portfolio that appear to be crucial and this has effects both on the way the pre-service teachers plan and implement lessons and how the teacher educators provide guidance and clear expectations about what is required'. (Queensland College of Teaching (2012))

¹¹⁰ The theory behind introducing cohort toolkits is to formalise the practice of collaboration and working together. Research has shown that a common trait amongst the high achieving education systems is making teachers accountable to each other through collaboration. See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p.46. The cohort toolkit is a mechanism designed to help student teachers work together and share their work, building on what they collectively identify as the best examples. The toolkit has the additional function of helping them in their first year of teaching.

ASSESSMENT OF STUDENT TEACHERS

Assessment of student teachers is a critical component of any effective teaching methodology. It is the process of gathering and interpreting evidence to make judgements about student teachers' learning and represents the crucial link between learning outcomes, content, and teaching/learning activities. As such, it entails an on-going process of systematically examining student teachers' learning in terms of progress and outcomes. The assessment criteria reflect the beginner competency standards in the Teacher Competency Standard Framework and the modular units set out in the Structure of Curriculum, Learning Areas and Subject Modules section of this curriculum framework.

Teaching is a complex practice and the assessment model uses multiple sources and different forms of assessment to accommodate this.

The main focus of the assessments is to evaluate a student teacher's teaching practice. This includes assessed lesson observations and practicum. To assess the practicum, student teachers will complete and submit a portfolio of work documenting their progress. Focusing on the practical components of the degree course provides an integrated method to assess student teachers' competency level (a competency being the combination of knowledge, skills, values and their successful application in teaching-learning situations).¹¹¹ Student teachers will be expected to demonstrate relevant pedagogic and subject expertise. They will be assessed on the range of strategies they are able to call upon for improving pupil performance, as well as their commitment and capacity to accurately evaluate and develop their own practise in the classroom.

Assessment will also be used to ensure the student teachers' knowledge base. Adequate knowledge and confidence in the theory and subject matter is essential for effective teaching and this measure will assure quality of the expected standards.

The assessment methods used will be both formative and summative.

- **Formative assessment** assesses learning to inform, support and improve the teaching learning process. Formative assessment techniques such as open questioning, class demonstrations, observations, portfolio, self-assessment, peer assessment and effective feedback, are used throughout each lesson and provide the method to gauge whether or not each student teacher has met the learning objective for that lesson. Formative assessment requires that the system provide a number of enabling conditions, in particular adequate guidelines, class size, teacher training, as well as sensitization among stakeholders. Most importantly, as evidenced by many countries' reform experiences, if formative assessment has no weight or insignificant weight in students' grade promotion/ qualification/ certification, it cannot be effectively implemented.
- **Summative assessment** assesses the learning outcomes. These assessment techniques are used at defined intervals to measure outcomes to date. Examples

¹¹¹ Focusing on the practical components for the assessment reflects a recent international trend in emphasising what is referred to as 'authentic assessment'. This is now widely adopted in the region (Singapore, Hong Kong, Malaysia and Australia). The premise of authentic assessment is that when student teachers are practicing teaching their competencies are both 'visible and explicit'- the assessment is therefore more 'authentic'. See University of Queensland, School of Education, Teaching & Educational Development Institute and School of Human Movement Studies (2012) *An investigation of best practice in evidence-based assessment within pre-service teacher education programs and other professions*, Queensland College of Teachers and see Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p.46.

include final assessment of the student teacher’s portfolio, chapter end tests and college examinations etc. Objectivity is of major importance in summative assessments as this is where marks are assigned. The ways and types of tools must be prescribed, described clearly, positive and negative findings clearly delineated and reflective comments carefully worded. Additionally, information about the results of assessments must be constructive and sensitive because any and all feedback will have an emotional impact on the recipient.

The final assessment is a summative assessment. Table 7 below outlines the multiple sources and how each learning area is accorded a percentage weighting. The Practicum accounts for 50 per cent.¹¹² The weighting reflects a greater emphasis on improved practise in the classroom, as they will have to demonstrate inputs from the course through this.

Table 7: Summative Assessments Tools by Learning Area

Learning Area	Summative Assessment Tools ¹¹³	% Weighting
Essential Skills	<ul style="list-style-type: none"> Competency-based examination 	10%
Educational Studies	<ul style="list-style-type: none"> Portfolios of project-based work Oral presentations examinations (mid semester and final) Competency and knowledge-based chapter end tests Action research assignments Observed lesson demonstrations 	10%
Curriculum and Pedagogical Studies	<ul style="list-style-type: none"> Portfolios of teaching practice Oral presentations examinations (mid semester and final) Competency and knowledge-based chapter end tests Action research assignments Observed lesson demonstrations 	25%
Practicum	<ul style="list-style-type: none"> Portfolios of teaching practice: lesson plans, materials development, units of work, assessment tools Case studies Unit of Learning Review Practicum Journal/ Learning Journal (self-reflection) Observed lesson demonstrations 	50%
Reflective Practice	<ul style="list-style-type: none"> Self-evaluation sheet: strengths, weaknesses; improvement plan Appraisal with mentor 	5%

The assessment marks are converted to grade points (GP)

- Under 35% = 1
- From 35% - 49% = 2
- From 50% - 64% = 3
- From 64% - 74% = 4

¹¹² The percentage weighting has been designed to reflect the importance of teaching competencies (integrating theory and practice- see footnote above on authentic assessment) and include multiple sources to reflect the complexity of teaching practice.

¹¹³ The details of the assessment tools is influenced by the work of Linda Darling Hammond and Jon Synder Darling-Hammond, L., & Snyder, J. (2000). Authentic assessment of teaching in context. *Teaching and Teacher Education*, 16(5-6)

5. From 75% - 100% = 5

The formula to convert the GP to a grade point average (GPA) is:

$$\text{GPA} = \frac{\sum (\text{Credit Unit} \times \text{Grade Point})}{\sum \text{Credit Unit}}$$

The formula to convert the GPA to a credit grade point average (CGPA) is:

$$\text{CGPA} = \frac{\sum \text{Grade Point Average}}{\text{No. of semesters}}$$

MONITORING AND EVALUATION (M&E) OF THE NEW EC CURRICULUM

Monitoring is an ongoing, systematic collection of information to assess progress towards the achievement of objectives, outcomes and impacts.

Evaluation is the systematic and objective assessment of an on-going or completed project, programme or policy, its design, implementation and results, with the aim to determine the relevance and fulfilment of objectives, development efficiency, effectiveness, impact and sustainability.

Ideally, a curriculum (in its diverse dimensions) should be monitored and evaluated in a systematic and planned way:

- based on clear purposes and scope;
- at different levels in the education system: classroom, school, region, country levels;
- using valid and reliable data;
- within a clear quality framework;
- regularly;
- by suitably qualified and experienced people;
- by both internal and external evaluators, to ensure neutrality.

In this respect, a M&E and research component to be developed will be essential, to accompany the development and implementation of the new EC curriculum, and to inform the MoE, actors in education and the society at large about progress made, about what is really happening, and what needs to be further adjusted.

The area of curriculum M&E and research can be developed through the following measures:

- Mainstreaming evidence-based decision-making – conducting needs assessment as a crucial exercise in all areas relating to the reform, where evidence is unavailable or insufficient to inform decision-making;
- Developing and implementing a curriculum M&E strategy – investigating the quality of curriculum in its multiple dimensions in a systematic and planned way, at different levels of the education system;
- Building research capacities – forming a qualified research team to carry out the above exercises using scientific methods for objective results.

REFERENCES

- Abe, Masato and Margit Molnar (2014). *Myanmar Business Survey 2014: Survey Results*, OECD and UNESCAP. http://www.unescap.org/sites/default/files/MBS_Survey_Results.pdf
- Atkins. S et al. *Assessment of Pedagogical Practice and Practical Teaching Experiences in Myanmar's Education Colleges*, UNESCO, Myanmar.
- Barro, R. J. (1999). *Determinants of Democracy*. The Journal of Political Economy. 107(S6)
- Barroso Beltran, L. (1992) *A Guide Book for the Supervision of Student Teachers*, <http://www.elib.gov.ph/results.php?f=author&q=Beltran%2C+Linda+Barroso>
- Ball, D. L., Thames, M. H., & Phelps, G. (2008). *Content knowledge for teaching: What makes it special?* Journal of Teacher Education, 59(5).
- British Council and Voluntary Service Overseas (2014). *English for Education College Trainers Needs Analysis*, Myanmar.
- Coe. R et al. (2014) *What makes great teaching? Review of the underpinning research*. The Sutton Trust
- Center on International Education Benchmarking (2016). <http://www.ncee.org/programs-affiliates/center-on-international-education-benchmarking/top-performing-countries/singapore-overview/>
- Darling-Hammond, L., & Snyder, J. (2000). *Authentic assessment of teaching in context*. *Teaching and Teacher Education*, 16(5-6)
- Department for Education (England) (revised Sept 2015) *Introduction for newly qualified teachers, England*, Statutory guidance for appropriate bodies, head teachers, school staff and governing bodies
- Education Promotion and Implementation Committee (EPIC) (2014). *Preliminary Report: Teacher Education*, EPIC Teacher Education Working Group, Myanmar.
- Glaeser, E. L., Ponzetto, G. A. M. & Shleifer, A. (2007). *Why Does Democracy Need Education?* Journal of Economic Growth.
- Guerriero, S. *Teachers' Pedagogical Knowledge and the Teaching Profession*, Background Report and Project Objectives, OECD
- Hanushek, E. A., Kain, J. F., O'Brien, D. M., & Rivkin, S. G. (2005). *The Market for Teacher Quality*. NBER Working Paper 11154. Cambridge, MA: National Bureau of Economic Research (NBER).
- Hanushek, E. A., & S. G. Rivkin. (2010). *Generalizations about Using Value-Added Measures of Teacher Quality*. American Economic Review.

Hanushek, E. & Woessmann (2010). *The High Cost Of Low Educational Performance The Long-Run Economic Impact Of Improving Pisa Outcomes*, Organisation for Economic Cooperation and Development.

Hanushek, E. & Woessmann (2007). *Education Quality and Economic Growth*. Washington, DC: The World Bank.

Hanushek, E. & Woessmann (2009). *Schooling, Cognitive Skills, and the Latin American Growth Puzzle*. NBER Working Paper 15066. Cambridge, MA: National Bureau of Economic Research (NBER).

Hardman, F. et al. (2013). *Child-Centred Approaches and Teaching and Learning Practices in Selected Primary Schools in Child-Friendly School Focused Townships in Myanmar*, UNICEF Myanmar.

Hardman, F. et al. (2013). *Development of a Teacher Education Strategy Framework Linked to Pre and In-Service Teacher Training in Myanmar*, UNICEF Myanmar.

Hattie, J. (2003). *Teachers make a difference: What is the research evidence?* Australian Council for Educational Research Annual Conference on Building Teacher Quality, University of Auckland: New Zealand

Khin Zaw, Dr. (2013). *Rapid Assessment of Myanmar Teacher Education (Phase 1); Comprehensive Education Sector Review (CESR)*, Myanmar.

Lall, M. (2013) *Teachers' Voice: What Education Reform does Myanmar Need?* Myanmar Egress, Myanmar.

Levine, A. (2006). *Educating school teachers*, Washington DC: The Education Schools Project.

McKinsey and Co. (2007). *How the world's best performing school system come out on top*, London

Ministry of Education, Myanmar (2014), *Comprehensive Education Sector Review Phase 2 Report on Teacher Education*, Myanmar.

Ministry of Education, Myanmar (2014), *In-Depth Analysis, Component 4.3: Secondary teacher education and continuing professional development, CESR (Phase 2) Technical annex on secondary education subsector; Comprehensive Education Sector Review (CESR)*. Myanmar.

Ministry of Education, Myanmar National Curriculum Framework for Basic Education (5th version), Approved: May 2015

Myanmar, National Education Law (Parliamentary Law No. 41) September 30, 2014 [Amended 2015]

National League for Democracy, 2015 Election Manifesto

OECD (2011) *Building a High Quality Teaching Profession; Lessons From Around the World, Background Report for the International Summit on the Teaching Profession*

- Ogawa, K. (2014) *Myanmar Country Report on Teacher Policies*, UNESCO Bangkok.
- Ogawa, K. and team (2013). *A Study of the Comprehensive Assessment of Selected Educational Colleges in Myanmar*, UNICEF Myanmar.
- Ota, Miho (2013). *Teacher Education Component Report (Phase 2); Comprehensive Education Sector Review (CESR)*, KRI International Corp, JICA, Myanmar.
- Pritchett, L. & Viarengo, M. (2009). *Producing Superstars for the Economic Mundial: The Mexican Predicament with Quality of Education*. PEPG Working Paper 09-01. Cambridge, MA: Program on Education Policy and Governance (PEPG).
- Rappler, Know the best schools for teachers in PH (2014). <http://www.rappler.com/nation/53362-best-schools-teachers-ph>
- Redden, E. (2007). *Teacher Education Review*, Ministry of Education and UNICEF, Myanmar.
- Rockoff, J. E. (2004). *The Impact of Individual Teachers on Student Achievement: Evidence from Panel Data*. *American Economic Review*, 94(2)
- Scannell, D. P. (2007). *Models of Teacher Education. Report to the American Council on Education Presidents' Task Force on Teacher Education*. <http://curie.umd.umich.edu/TeacherPrep/74.pdf>.
- Stabback. P., (2016) *What Makes a Quality Curriculum? Current and Critical Issues in Curriculum and Learning*, UNESCO IBE
- Shulman, L. S. (1986). *Those who understand: Knowledge growth in teaching*. *Educational Researcher*, 15(2)
- Tuovinen, J. E. (December 2008). *Teacher Professionalism – Viewpoints on Best Practice, the Case of Finland*. AARE 2008 Conference, Brisbane, Australia.
- Westbrook, J. et al., (2013). *Pedagogy, Curriculum, Teaching Practices and Teacher Education in Developing Countries: Final report*, Education Rigorous Literature Review, Institute of Education, Evidence for Policy and Practice Information and Co-ordinating Centre, London, UK.
- World Bank (2012). *What matters most in teacher policies? A framework for building a more effective teaching profession: SABER, USA*
- World Bank (Sondergard. L et al.) (2015). *Myanmar Civil Service Pay, Compensation and Human Resource Review: Details of proposed work under component D: A sector case study focusing on pay and employment issues in education Annex 8: Myanmar Impediments for Effective Teaching*, Myanmar.
- UNESCO (2016), *Education College Curriculum Review, Strengthening Pre-service Teacher Education in Myanmar (STEM) Project*, UNESCO, Myanmar.
- UNESCO (2015). *Teacher Policy Development Guide*, UNESCO, Paris.

UNESCO (2015) *Transforming Teaching and Learning in Asia and the Pacific Case Studies from Seven Countries*, UNESCO, Paris.

University of Queensland, School of Education, Teaching & Educational Development Institute and School of Human Movement Studies (2012) *An investigation of best practice in evidence-based assessment within pre-service teacher education programs and other professions*, Queensland College of Teachers.

Vine, K. (2010). *Quantitative Study of Child Friendly School Implementation in Myanmar*. UNICEF: Myanmar

Yeban, F. I. (2005) *A Comparative Survey of Teacher Training in Selected ASEAN States: Implications to Human Rights Education*, Philippine Normal University <http://www.hrusa.org/workshops/HREWorkshops/usa/AseanReport.htm>

Young, M. (2013). *Secondary Teacher Education and Continuing Professional Development Report; Comprehensive Education Sector Review (CESR) Myanmar*.

Young Park. C., Muhammad E.K., & Vandenberg P. (2012), *Myanmar in Transition: Opportunities and Challenges*, Mandaluyong City, Philippines: Asian Development Bank (ADB)

ANNEXES

Annex 1: Basic Education Curriculum Framework

Summary of curriculum framework for primary and middle school

	Curriculum structure	Teaching and learning approaches	Types of assessment
Primary School	<p>10 learning areas: Myanmar, English, Mathematics, Science, Social Studies, Physical Education, Life Skills, Art (Performing Art and Visual Art), Morality and Civics, and Local Curriculum</p> <p>Lower primary: 840 hrs per year Upper primary: 960 hrs per year</p> <p>Local curriculum not more than five periods per week and 120 hours per year</p>	<p><i>Focus on child centred approach:</i></p> <ol style="list-style-type: none"> 1. Create a supportive learning environment 2. Encourage reflective thought and action 3. Enhance the relevance of new learning 4. Facilitate shared learning 5. Make connections to prior learning and experience 6. Provide sufficient opportunities to learn 7. Inquire into the teaching-learning relationship 	<p>Classroom-level assessment (formative)</p> <p>School-level assessment (end of term and end of year exams)</p> <p>Assessment at the completion of each basic education level</p> <p>National level assessment</p>
Middle School	<p>11 learning areas: (same as above but Social Studies are split into History and Geography)</p> <p>Focus on 21st century skills</p> <p>1080 instructional hours per year</p> <p>Local curriculum not more than four periods per week and 108 hours per year</p>	<p><i>Focus on competency-based approach:</i></p> <p>Teachers to be selective in their use of a variety of teaching methods as appropriate to each subject and lesson</p>	<p>(same as above)</p>

Annex 2: Overview of modular credit based system

First Year EC B.Ed

First Year

Semester I

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	Assessment weighting
1	ESk- 1001	Developing Essential Skills	3	68	10 %
2	ES- 1001	Understanding Educational Theories	7	177	10 %
3	CPS- 1001	Teaching BE Curriculum Subjects	9	265	25 %
4	Pr- 1001	Teaching Practice/P&M	4	105	50 %
5	RP- 1001	Reflective Practice	2	85	5 %
Total			25	700	100%

Foundation Courses:	ESk- 1001	Developing Essential Skills
Core Courses:	ES- 1001	Understanding Educational Theories
	CPS- 1001	Teaching BE Curriculum Subjects
	Pr- 1001/ P&M	Teaching Practice/ P&M
Formative Courses:	RP- 1001	Reflective Practice

First Year

Semester 2

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	Assessment weighting
1	ESk - 1002	Developing Essential Skills	3	68	10 %
2	ES- 1002	Understanding Educational Theories	5	110	10 %
3	CPS- 1002	Teaching BE Curriculum Subjects	11	331	25 %
4	P- 1002/ P&M	Teaching Practice/ P&M	4	105	50 %
5	RP- 1001	Reflective Practice	2	85	5 %
Total			25	700	100%

Foundation Courses:	ESk- 1002	Developing Essential Skills
Core Courses:	ES- 1002	Understanding Educational Theories
	CPS- 1002	Teaching BE Curriculum Subjects
	Pr- 1002/ P&M	Teaching Practice/ P&M
Formative Courses:	RP- 1002	Reflective Practice

Second Year EC B.Ed

PRIMARY SCHOOL TRACK

Second Year

Semester 1

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
1	ESk- 2001	Developing Essential Skills	1	30	10 %
2	ES- 2001/P	Understanding Educational Theories/P	6	168	10 %
3	CPS- 2001/P	Teaching Primary School Curriculum/P	9	252	25 %
4	Pr- 2001/P	Teaching Practice/P	7	175	50 %
5	RP- 1001	Reflective Practice	2	75	5 %
		Total	25	700	100%

Foundation Courses:	ESk- 2001	Developing Essential Skills
Primary School Track Courses:	ES- 2001/P	Understanding Educational Theories/P
	CPS- 2001/P	Teaching Primary School Curriculum
	Pr- 2001/P	Teaching Practice/P
Formative Courses:	RP- 2001	Reflective Practice

Second Year

Semester 2

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
1	ESk- 2002	Developing Essential Skills	1	30	10 %
2	ES- 2002/P	Understanding Educational Theories/P	4	105	10 %
3	CPS- 2002/P	Teaching Primary School Curriculum/P	11	315	25 %
4	Pr- 2002/P	Teaching Practice/P	7	175	50 %
5	RP- 1001	Reflective Practice	2	75	5 %
		Total	25	700	100%

Foundation Courses:	ESk- 2002	Developing Essential Skills
Primary School Track Courses:	ES- 2002/P	Understanding Educational Theories/P
	CPS- 2002/P	Teaching Primary School Curriculum
	Pr- 2002/P	Teaching Practice/P
Formative Courses:	RP- 2002	Reflective Practice

MIDDLE SCHOOL TRACK

Second Year

Semester 1

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
1	ESk- 2001	Developing Essential Skills	1	30	10 %
2	ES- 2001/M	Understanding Educational Theories/M	6	168	10 %
3	CPS- 2001/M	Teaching Middle School Curriculum	9	252	25 %
4	Pr- 2001/M	Teaching Practice/M	7	175	50 %
5	RP- 1001	Reflective Practice	2	75	5 %
		Total	25	700	100%

Foundation Courses:	ESk- 2001	Developing Essential Skills
Middle School Track Courses:	ES- 2001/M	Understanding Educational Theories/M
	CPS- 2001/M	Teaching Middle School Curriculum
	Pr- 2001/M	Teaching Practice/M
Formative Courses:	RP- 2001	Reflective Practice

Second Year

Semester 2

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
1	ESk- 2002	Developing Essential Skills	1	30	10 %
2	ES- 2002/M	Understanding Educational Theories/M	4	105	10 %
3	CPS- 2002/M	Teaching Middle School Curriculum/M	11	315	25 %
4	Pr- 2002/M	Teaching Practice/M	7	175	50 %
5	RP- 1001	Reflective Practice	2	75	5 %
		Total	25	700	100%

Foundation Courses:	ESk- 2002	Developing Essential Skills
Middle School Track Courses:	ES- 2002/M	Understanding Educational Theories/M
	CPS- 2002/M	Teaching Middle School Curriculum
	Pr- 2002/M	Teaching Practice/M
Formative Courses:	RP- 2002	Reflective Practice

Third Year EC B.Ed**PRIMARY SCHOOL TRACK**

Third Year

Semester 1

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
1	ESK- 3001	Proficiency in Essential Skills	1	34	10 %
2	ES- 3001/P	Applying Educational Theories/P	5	119	10 %
3	CPS- 3001/P	Mastering the Primary School Curriculum	13	357	25 %
4	Pr- 3001/P	Refining Teaching Practice/P	4	105	50 %
5	RP- 1001	Reflective Practice	2	85	5 %
		Total	25	700	100%

Foundation Courses:	ESK- 3001	Proficiency in Essential Skills
Primary School Track Courses:	ES- 3001/P	Applying Educational Theories/P
	CPS- 3001/P	Mastering the Primary School Curriculum
	Pr- 3001/P	Refining Teaching Practice/P
Formative Courses:	RP- 3001	Reflective Practice

Third Year

Semester 2

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
1	ESK- 3002	Proficiency in Essential Skills	1	34	10 %
2	ES- 3002/P	Applying Educational Theories/P	5	119	10 %
3	CPS- 3002/P	Mastering the Primary School Curriculum	13	357	25 %
4	Pr- 3002/P	Refining Teaching Practice/P	4	105	50 %
5	RP- 1001	Reflective Practice	2	85	5 %
		Total	25	700	100%

Foundation Courses:	ESK- 3002	Proficiency in Essential Skills
Primary School Track Courses:	ES- 3002/P	Applying Educational Theories
	CPS- 3002/P	Mastering the Primary School Curriculum
	Pr- 3002/P	Refining Teaching Practice
Formative Courses:	RP- 3002	Reflective Practice

MIDDLE SCHOOL TRACK

Third Year

Semester 1

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
1	ESk- 3001	Proficiency in Essential Skills	1	34	10 %
2	ES- 3001/M	Applying Educational Theories/M	5	119	10 %
3	CPS- 3001/M	Mastering the Middle School Curriculum	13	357	25 %
4	Pr- 3001/M	Refining Teaching Practice/M	4	105	50 %
5	RP- 1001	Reflective Practice	2	85	5 %
Total			25	700	100%

Foundation Courses:	ESk- 3001	Proficiency in Essential Skills
Middle School Track Courses:	ES- 3001/M	Applying Educational Theories
	CPS- 3001/M	Mastering the Middle School Curriculum
	Pr- 3001/M	Refining Teaching Practice
Formative Courses:	RP- 3001	Reflective Practice

Third Year

Semester 2

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
1	ESk- 3002	Proficiency in Essential Skills	1	34	10 %
2	ES- 3002/M	Applying Educational Theories/M	5	119	10 %
3	CPS- 3002/M	Mastering the Middle School Curriculum	13	357	25 %
4	Pr- 3002/M	Refining Teaching Practice/M	4	105	50 %
5	RP- 1001	Reflective Practice	2	85	5 %
Total			25	700	100%

Foundation Courses:	ESk- 3002	Proficiency in Essential Skills
Middle School Track Courses:	ES- 3002/M	Applying Educational Theories/M
	CPS- 3002/M	Mastering the Middle School Curriculum
	Pr- 3002/M	Refining Teaching Practice/M
Formative Courses:	RP- 3002	Reflective Practice

Fourth Year EC B.Ed

PRIMARY SCHOOL TRACK

Fourth Year

Semester 1

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
1	ESk- 4001	Proficiency in Essential Skills	1	24	10 %
2	ES- 4001/P	Applying Educational Theories/P	3	84	10 %
3	CPS- 4001/P	Mastering the Primary School Curriculum	9	252	25 %
4	Pr- 4001/P	Refining Teaching Practice/P	10	280	50 %
5	RP- 1001	Reflective Practice	2	60	5 %
		Total	25	700	100%

Foundation Courses:	ESk- 4001	Proficiency in Essential Skills
Primary School Track Courses:	ES- 4001/P	Applying Educational Theories/P
	CPS- 4001/P	Mastering the Primary School Curriculum
	Pr- 4001/P	Refining Teaching Practice/P
Formative Courses:	RP- 4001	Reflective Practice

Fourth Year

Semester 2

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
1	BS- 4002	Proficiency in Essential Skills	1	32	10 %
2	ES- 4002/P	Applying Educational Theories/P	4	90	10 %
3	CPS- 4002/P	Mastering the Primary School Curriculum	12	358	25 %
4	P- 4002/P	Refining Teaching Practice/P	6	140	50 %
5	RP- 1001	Reflective Practice	2	80	5 %
		Total	25	700	100%

Foundation Courses:	ESk- 4002	Proficiency in Essential Skills
Primary School Track Courses:	ES- 4002/P	Applying Educational Theories/P
	CPS- 4002/P	Mastering the Primary School Curriculum
	Pr- 4002/P	Refining Teaching Practice/P
Formative Courses:	RP- 4002	Reflective Practice

MIDDLE SCHOOL TRACK

Fourth Year

Semester 1

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
1	ESk- 4001	Proficiency in Essential Skills	1	24	10 %
2	ES- 4001/M	Applying Educational Theories/M	3	84	10 %
3	CPS- 4001/M	Mastering the Middle School Curriculum	9	252	25 %
4	Pr- 4001/M	Refining Teaching Practice/M	10	280	50 %
5	RP- 1001	Reflective Practice	2	60	5 %
		Total	25	700	100%

Foundation Courses:	ESk- 4001	Proficiency in Essential Skills
Middle School Track Courses:	ES- 4001/M	Applying Educational Theories/M
	CPS- 4001/M	Mastering the Middle School Curriculum
	Pr- 4001/M	Refining Teaching Practice/M
Formative Courses:	RP- 4001	Reflective Practice

Fourth Year

Semester 2

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
1	ESk- 4002	Proficiency in Essential Skills	1	32	10 %
2	ES- 4002/M	Applying Educational Theories/M	4	90	10 %
3	CPS- 4002/M	Mastering the Middle School Curriculum	12	358	25 %
4	Pr- 4002/M	Refining Teaching Practice/M	6	140	50 %
5	RP- 1001	Reflective Practice	2	80	5 %
		Total	25	700	100%

Foundation Courses:	ESk- 4002	Proficiency in Essential Skills
Middle School Track Courses:	ES- 4002/M	Applying Educational Theories/M
	CPS- 4002/M	Mastering the Middle School Curriculum
	Pr- 4002/M	Refining Teaching Practice/M
Formative Courses:	RP- 4002	Reflective Practice

Credit points by learning area

First Year EC B.Ed

First Year

Semester I

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	Assessment weighting
3	CPS- 1001	Teaching Primary School Curriculum/P: Myanmar English Mathematics Science Social Studies Physical Education Life Skills Art Morality and Civics Local Curriculum ICT	9 2 1 2 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	265	25 %

First Year

Semester 2

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	Assessment weighting
3	CPS- 1002	Teaching Primary School Curriculum/P: Myanmar English Mathematics Science Social Studies Physical Education Life Skills Art Morality and Civics Local Curriculum ICT	11 2.5 2 2.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	331	25 %

Second Year EC B.Ed**PRIMARY SCHOOL TRACK**

Second Year

Semester 1

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
3	CPS-2001/P	Teaching Primary School Curriculum/P: Myanmar English Mathematics Science Social Studies Physical Education Life Skills Art Morality and Civics Local Curriculum ICT	9 2 1.5 1.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	252	25 %

Second Year

Semester 2

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
3	CPS-2002/P	Teaching Primary School Curriculum/P: Myanmar English Mathematics Science Social Studies Physical Education Life Skills Art Morality and Civics Local Curriculum ICT	11 2.5 2 2.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	315	25 %

MIDDLE SCHOOL TRACK

Second Year

Semester 1

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
3	CPS-2001/M	Teaching Middle School Curriculum: Myanmar English Mathematics 1 Elective subject area: - Languages - Mathematics, Science, ICT - Social Studies, Morality and Civics, Local Curriculum - Art, Life Skills, Physical Education	9 2.5 2.5 2.5 1.5	252	25 %

Second Year

Semester 2

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
3	CPS-2002/M	Teaching Middle School Curriculum/M: Myanmar English Mathematics 1 Elective subject area: - Languages - Mathematics, Science, ICT - Social Studies, Morality and Civics, Local Curriculum - Art, Life Skills, Physical Education	11 3 3 3 2	315	25 %

Third Year EC B.Ed**PRIMARY SCHOOL TRACK**

Third Year

Semester 1

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
3	CPS-3001/P	Mastering the Primary School Curriculum: Myanmar English Mathematics Science Social Studies Local Curriculum Physical Education Life Skills Art Morality and Civics ICT	13 2.5 2 2.5 1 1 1 0.5 0.5 0.5 0.5 0.5	357	25 %

Third Year

Semester 2

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
3	CPS-3002/P	Mastering the Primary School Curriculum: Myanmar English Mathematics Science Social Studies Local Curriculum Physical Education Life Skills Art Morality and Civics ICT	13 2.5 2 2.5 1 1 1 0.5 0.5 0.5 0.5 0.5	357	25 %

MIDDLE SCHOOL TRACK

Third Year

Semester 1

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
3	CPS-3001/M	Mastering the Middle School Curriculum: Myanmar English Mathematics 1 Elective subject area: - Languages - Mathematics, Science, ICT - Social Studies, Morality and Civics, Local Curriculum - Art, Life Skills, Physical Education	13 3.5 3.5 3.5 2.5	357	25 %

Third Year

Semester 2

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
3	CPS-3002/M	Mastering the Middle School Curriculum: Myanmar English Mathematics 1 Elective subject area: - Languages - Mathematics, Science, ICT - Social Studies, Morality and Civics, Local Curriculum - Art, Life Skills, Physical Education	13 3.5 3.5 3.5 2.5	357	25 %

Fourth Year EC B.Ed

PRIMARY SCHOOL TRACK

Fourth Year

Semester 1

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
3	CPS-4001/P	Mastering the Primary School Curriculum: Myanmar English Mathematics Science Social Studies Local Curriculum Physical Education Life Skills Art Morality and Civics ICT	9 2 1 2 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	252	25 %

Fourth Year

Semester 2

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
3	CPS-4002/P	Mastering the Primary School Curriculum: Myanmar English Mathematics Science Social Studies Local Curriculum Physical Education Life Skills Art Morality and Civics ICT	12 2.5 1.5 2.5 1 1 1 0.5 0.5 0.5 0.5 0.5	358	25 %

MIDDLE SCHOOL TRACK

Fourth Year

Semester 1

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
3	CPS-4001/M	Mastering the Middle School Curriculum: Myanmar English Mathematics 1 Elective subject area: - Languages - Mathematics, Science, ICT - Social Studies, Morality and Civics, Local Curriculum - Art, Life Skills, Physical Education	9 2.5 2.5 2.5 1.5	252	25 %

Fourth Year

Semester 2

Sr. No.	Module No.	Name of Module	Credit points per semester	Hrs per semester	% assessment weighting
3	CPS-4002/M	Mastering the Middle School Curriculum: Myanmar English Mathematics 1 Elective subject area: - Languages - Mathematics, Science, ICT - Social Studies, Morality and Civics, Local Curriculum - Art, Life Skills, Physical Education	12 3 3.5 3.5 2	358	25 %

Annex 3: Summary of Learning Areas and Modules

Educational Studies

Module 1.1 Understanding Educational Theories

This module introduces student teachers to the theoretical foundations of pedagogy and childhood development and *how* this can be applied in the classroom.

Unit 1: Planning and Preparation

This unit uses the practical activity of planning and preparation to introduce student teachers to the theoretical basis of how a teacher should design their learning activities in the classroom. These include: how to demonstrate knowledge of relevant content and pedagogy, demonstrating knowledge of the students, selecting instructional goals, demonstrating knowledge of resources, designing coherent instruction and assessing student learning.

Content:
Pedagogic Theory and Practice
Childhood Development
Setting Success Criteria
Designing Teaching Activities
Designing Assessment Activities

Unit 2: Creating a Learning Environment

This unit enables student teachers to examine and test the theories of how to establish the right climate for learning. These look at creating an environment of respect and rapport among the pupils and the teachers, establishing a culture for learning, managing classroom procedures, managing pupil behaviour and organising the physical environment. A key component of this unit is testing how to create effective learning in either resource-constrained or context-specific environments such as multi-grade or multi-lingual classes.

Content:
Creating a Supportive Learning Environment
Establishing a Climate for Learning
Managing Classroom Procedures
Dealing with Discipline
Organising the Classroom

Unit 3: Developing Learning Strategies

This unit looks at a range of strategies teachers can use to engage pupils in the learning process. These include communicating clearly and accurately, using questioning and discussion techniques, engaging students in learning, providing feedback and demonstrating

flexibility and responsiveness. Again this unit includes a component to develop the skills needed to adapt strategies in specific circumstances.

Content:
Communicating with Students
Developing Questioning Techniques
Co-operative Learning
Assessment in the Classroom
Adapting to Circumstances

Unit 4: Professional Responsibilities

This unit teaches student teachers about what it means to be a teacher, the behaviour expected of a teacher and the range of teachers' responsibilities outside the classroom. These include reflecting on teaching, maintaining accurate records, contributing to the school and wider community, engaging parents in their child's learning process, growing and developing professionally and showing professionalism.

Content:
Reflecting on Practice
Recording Progress
Working with Others
Continuous Professional Development
Modelling Professional Standards and Behaviours

Curriculum and Pedagogical Studies

Module 2.1 Teaching the BE Curriculum

This module provides the opportunity for student teachers to integrate educational theory, subject knowledge and knowledge of pedagogies.

The module is organised by the list of subjects specified in the Basic Education curriculum for each level. In Year 1, all student teachers will learn how to teach content that is relevant to both primary and middle school. From Year 2 onwards, the different specialist tracks directly reflect the expectations in the Basic Education Curriculum Framework for each education level.

Within each subject, the student teacher will learn how to deconstruct the material and help pupils engage with the content.

Student teachers are asked to apply theories of knowledge and knowledge management to explore the differences between knowledge transmission and knowledge transfer. Student teachers have to review a range of strategies for the presentation of new material. Learners are not just passive recipients of content, and as a consequence of this, our student teachers are expected to take responsibility for deconstructing subject matter into relevant

components that can be used to guide their pupils in actively constructing knowledge¹¹⁴.

Student teachers analyse the content presented through the Basic Education textbooks in specific subject areas and consider how this information can be 'scaffolded' to ensure all students are able to access the learning points in the materials developed for the subject areas. They are encouraged to identify specific strands of knowledge within particular subjects and examine how the treatment of this content is revisited at different levels in other grades.

The textbooks in both the primary and middle schools form the initial starting point for this work, but over the course of the module, student teachers are encouraged to design and share their own supplementary materials, to demonstrate their understanding of how the content can be used to contribute to the broader development of their pupils.

Student teachers use the revised version of Bloom's Taxonomy¹¹⁵ to consider how the materials and activities related to this can be adjusted, to encourage the development of higher order thinking and make connections with other subject areas.

Student teachers are asked to examine how different subjects have distinctive ways of thinking about the world as well as elements in common. For example, the connections between the studies of the world in science and geography overlap in a number of important ways such as the study of landscape, plants and natural phenomena. Rather than repeat information, it is important that teachers are aware of how such areas of study complement each other and that good connections are made, so pupils can apply their knowledge in different contexts and understand their subject matter at a deeper level.

Content:
Principles of Learning
Theories of Knowledge
Units of Study
Brain Research and Graphic Organisers
Lesson Planning for Cognitive Impact
Bloom's Taxonomy

¹¹⁴ One of the key learning theories behind this curriculum framework is the constructivism which suggests that learning is more effective when pupils can construct their own knowledge building on their own experiences and prior knowledge. The teacher's role is to deconstruct knowledge into relevant component parts that engage pupils and can then be used as building blocks. See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p.45

¹¹⁵ A classification of educational objectives developed in the 1950s by a group of researchers headed by Benjamin Bloom. The taxonomy is a sequential classification of forms of learning that is often used to describe the educational objectives because it reflects the progressive to high order thinking. Bloom, B.S. (ed.) (1956). *Taxonomy of Educational Objectives, the classification of educational goals – Handbook I: Cognitive Domain* New York: McKay. The taxonomy most often used today, and the one cited here is the 2001 revised edition, put forward by two of Bloom's former students Lorin and Krathwohl. (Anderson, Lorin W. & Krathwohl, David R. (2001). *A Taxonomy for Learning, Teaching and Assessing: a Revision of Bloom's Taxonomy*. New York. Longman Publishing.

Remembering and Understanding
Information Transfer
Application in Context
Higher Order Thinking Skills

Practicum

Module 3.1 Teaching Practice

This module allows student teachers to practice what they have learned in a real classroom. Because of the practical emphasis in this curriculum, this module is the crux of the course.

Unit 1: Observation in Practice schools

This is a series of one-day attachments in practice schools. Participants are asked to observe, examine and report on specific aspects of each domain as part of these school visits. They are assigned a specific pupil to shadow during the course of the day. They will interview this pupil over the course of five visits to plot their learning journey on a specific aspect of their work, to a case study on their level of students.

Unit 2: Short-term practice in partner schools

Participants work with groups of students and focus on the development of one skill over a series of week-long sessions. They are asked to work with the class of pupils to test a specific area they have analysed previously and to evaluate their own and the group's capacity to establish an effective learning environment.

Unit 3: School placement 1

Participants work by themselves to prepare and deliver several units of work to the class of pupils over a period of five weeks. They are asked to identify a specific area of their practice that they wish to reflect on and to prepare class profiles to support their Assessment for learning' criteria.

Unit 4: School placement 2

Participants are expected to demonstrate greater levels of independence during their final visit to the schools in this cycle. They should be able to direct the learning of the whole class for a period of five weeks. In their classes, they should be able to establish a positive learning environment through effective classroom management routines, and encouraging the active engagement of their pupils through interactive teaching strategies. Participants are expected to monitor and provide structured feedback on their students' work as well as demonstrate how their assessment for learning criteria has been built into their planning and the differentiation of their pupils' work.

Practicum: Teaching and Learning in Years 1 and 2

Practicum: Teaching and Learning			
Year 1	Semester 1	Practicing school	5 days (over 5-month period)
		Partner school	10 days (2 separate weeks)
	Semester 2	Partner school	15 days (3 separate weeks)
Year 2	Semester 3	School placement	25 days (5 consecutive weeks)
	Semester 4	School placement	25 days (5 consecutive weeks)
TOTAL:			80 days

Essential Skills

Module 4.1 Developing Essential Skills

This objective of this module is to ensure future teachers are confident in the essential skills needed to teach effectively and are able to model 21st century skills

Communication skills

1. Verbal communication and presentation skills:
Student teachers learn and practice how to communicate effectively and how to present and articulate ideas. Verbal communication is fundamental to all learning and in many of the classrooms across Myanmar this may have to involve more than one language.
2. Written communication and grammar:
To write effectively, student teachers need to be able to articulate what they want to communicate into sentences and texts with accurate grammar and spelling. Student teachers are taken through the appropriate writing genres for each subject and learn how to help and give feedback to their pupils own writing skills.

Research skills

3. Navigating resources:
To support their self-directed and on-going learning, student teachers learn how to find and how to evaluate what resources are useful.
4. Reading skills:
There are many skills involved in reading and student teachers learn to refine their own practice as well as develop these skills for the age-group they are teaching. In the primary school track, specific attention is given to phonological awareness to support early literacy; those in the middle school track are also expected to have a good understanding of phonetics to support pupils in literacy recovery where needed. In terms of developing themselves, all student teachers look at the reading skills that will help them with their own studies on the course. These include strategies for making sense of new texts, skimming and scanning longer texts, reflecting on how language is used, the effects created by the writer, to understand implied meanings or detect where there is bias, as well as being able to distinguish between opinion and evidence.

Problem solving and critical thinking

5. Logic problems:
Student teachers are provided with logic-based exercises that they have to solve. This helps student teachers develop their own ability to solve an issue

while also helping them think about strategies to support their own pupils to think creatively and critically.

6. Numeracy:
Reflecting on their own numeracy skills and conceptual understanding of numeracy will support student teachers in delivering not only Mathematics but also in thinking conceptually about other subjects such as sciences. The concepts and techniques in numeracy of how to describe shape and space, to calculate, to communicate patterns and to represent data are essential in understanding the world and in explaining it. Student teachers are shown how this can be developed in most subjects where data is used and how the interpretation of graphs and diagrams can be extended to use in different language texts.

Leadership and teambuilding skills

7. Every year one week of this module is dedicated to leadership and team building exercises. This helps student teachers develop these essential soft skills for working within a professional learning community and understanding what it means to lead.
- 8.

ICT Skills

9. The use of computers has become relevant to all subjects as word-processing, use of visual data and use of Internet research are becoming commonplace. Student teachers develop basic ICT skills and confidence to be able to use ICT to support their own learning and teaching styles. This incorporates opportunities to explore and integrate mobile learning (smart phone education apps).¹¹⁶

Languages

10. Specific attention is given to the language of delivery and the student teachers' own capacity to demonstrate mastery in each of the following languages:
 1. Local languages (designated in each state or region)
 2. English language (medium of instruction for some subjects and tool to access wealth of English-based online teaching resources and teacher training opportunities¹¹⁷)

CYCLE 2: Years 3 and 4

The beginning of Year 3 represents the halfway point of the degree course and the beginning of the Cycle 2. Student teachers are required to build on the concepts learned previously to deepen and broaden their knowledge base, skills and attitudes. On the basis of a gradual release model applied to this cyclical programme, there will be a distinct shift of expectations, as student teachers are encouraged to take on more responsibility for directing their own learning as the course progresses.

¹¹⁶ See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). p.44

¹¹⁷ When designing the actual curriculum, this component on English proficiency should build on the work already achieved through the EfECT programme (British Council and VSO project)

Educational Studies

Module 1.2 Applying Educational Theories

This module builds on the pedagogic theory and techniques established in Cycle 1 of the module and enables student teachers to further investigate and apply the educational theory to their own practice.

This module includes time for student teachers to carry out an independent piece of action research.

Unit 1: Delivering effective lessons

In this unit, student teachers further develop their understanding of the need to establish common ground rules and routines for student behaviour, class and group discussion. They explore the importance of organisation and access to resources, and the management of time in lessons. In addition, student teachers begin to appreciate the value of setting out their expectations in terms of how it contributes to the success of a particular activity and the class ethos.

Effective teachers plan lessons that have realistic, observable learning objectives and well planned organisation and resources. They also demonstrate a managed progression from directed to independent work, and feature focussed group work for collaboration and teaching. Quality lesson plans include plenaries for reflection and self-evaluation.

Content:
Setting Objectives
Active Learning
Interactive Strategies
Providing Feedback
Acting on Concerns

Unit 2: Assessment for Learning

In this unit, student teachers develop their understanding and capacity to monitor the work of their pupils and design follow up activities that build on the levels of attainment their pupils have achieved during the lessons.

Effective teachers set objectives, or targets for every pupil and undertake diagnostic teaching by integrating assessments into the teaching process. They also promote systematic and frequent individual pupil tracking and involve pupils in assessment of their own progress. Confidence and success for every pupil is promoted and a rapid response to needs and problems is provided at the point of learning.

Content:
Identifying Needs
Developing Data
Assessment Tools
Acting on Evidence
Extending Development

Unit 3: Ways of Working

In this unit, student teachers understand how to work effectively within a school. They learn about to work both independently and within a team. They learn how to manage hierarchical relationships and how to provide mentoring support. A key part of this unit looks at Professional Learning Communities and how teachers can benefit from being part of the community.

Content:
Motivation
Teambuilding
Professional Learning Communities
Managing Relationships
Developing Autonomy

Unit 4: Developing Professional Standards

In this unit, student teachers reflect on their responsibilities as a teacher and are asked to evaluate themselves against the Teacher Competencies Standards Framework (TCSF). They are encouraged to identify a particular area of their practice that requires additional development, and are given the opportunity to experiment and refine their profile against the national framework in a secure and supportive environment of the ECs. Teachers are seen as role models, reflecting the values of Myanmar culture and values.

Content:
Research Skills
Demonstrating Teaching Techniques
Being a Role Model in Schools and the Community
Supporting Each Other
Reporting and Reflecting

Curriculum and Pedagogical Studies

Module 2.2 Mastering the BE Curriculum

This module analyses how student teachers can organise their lessons and materials to develop an effective learning experience for their pupils. They will learn to appreciate the need for the active engagement of their pupils, and will develop a range of interactive teaching strategies that will help their pupils in their progression towards autonomy.

As part of this module student teachers learn to understand the importance of organising their lessons and support materials, to contribute to broader elements of their pupils' positive development, by ensuring their pupils are able to achieve the tasks set and experience success in the activities they undertake during their lessons.

Pupils are more likely to demonstrate their success and achievement if they are clear about what it is they are expected to achieve. Therefore, objectives, purposes, and outcomes, should be identified for all levels of lesson planning and overtly stated and shared with pupils at the start of each lesson. Learning depends upon progression in skill development: learners require systematic opportunities to build on what they know, so that they can extend their skills, knowledge, and understanding, by progressing from simple to more complex thinking and activities.

Student teachers are taken through the process of getting their pupils to engage actively with the material. Each subject area will have a different contribution to make in the development of particular knowledge areas and skills. Active learners make connections, construct rules, infer and use analogies. They can also generate and test hypotheses, express and clarify their ideas and opinions, and have secure problem-solving strategies in place. They use a range of thinking strategies including talking aloud, using actions, drawings, making notes and diagrams, and can imagine and empathise. They additionally demonstrate the ability to analyse actions, ideas, processes, and texts, to understand and explain how they work, and can critically respond and evaluate.

Content:
Curriculum Components
Lesson Planning and the Learning Experience
Making Connections Across the Curriculum
Degrees of Complexity
Indicators of Progression and Development
Memory and Learning
Self-Expression and Interaction
Using the Pupils as a Source of Knowledge
Thinking Outside the Box
Differentiation

Student teachers are asked to look at different groups within the student population and determine strategies for meeting their specific needs and support them at progress at their own pace.

Content:
Inclusive Education
Special Needs
Gender Issues
Gifted and Talented
Additional Language Learners

Module 3.2: Practicum- Teaching and Learning Professional Practice

The focus of this module is to prepare student teachers to take an active role in the schools they are visiting, and demonstrate their capacity to act responsibly and professionally as part of the staff.

Unit 1: Short-term practice in partner schools

Student teachers are expected to undertake a supported teaching practice with the whole class over a period of three weeks. They are asked to keep a learning journal during this time, the distinction between this and the practicum journal is that rather than simply recording the events of their practicum, the learning journal will require them to log details about a particular aspect of learning they have investigated during their teaching practice.

Unit 2: Short-term practice in partner schools

Student teachers are asked to take over the running of the whole class timetable for a period of three weeks. The class teachers are available to support and mentor the student teacher during this practice. Prior to this practice, the student teachers will have developed their own materials to supplement the current textbook content. The student teachers are asked to evaluate how effective these materials are and submit their improvements as part of their cohort tool-kit submission.

Unit 3: Long-term school placement

In the final year, the student teachers need to demonstrate their capacity to take responsibility for the whole class over a sustained period of eight weeks. They will video one of their own lessons and undertake a lesson study with other student teachers teaching the same year groups.

Unit 4: Final practice in partner schools

Prior to this final teaching practice, the student teachers will have identified an action research focus that they will investigate with their pupils over the final four-week period. They are encouraged to analyse and solve a practical issue and the results of their

deliberations will be submitted for further review and potential selection as part of the cohort tool-kit.

Practicum: Teaching and Learning in Years 3 and 4

Practicum: Teaching and Learning			
Year 3	Semester 5	School placement	15 days (3 consecutive weeks)
	Semester 6	School placement	15 days (3 consecutive weeks)
Year 4	Semester 7	School placement	40 days (half a semester)
	Semester 8	Partner school	20 days (4 consecutive weeks)
TOTAL:			90 days

Essential Skills

Module 4.2 Proficiency in Essential Skills

In this module student teachers are able to focus on becoming proficient in a specific core skill.

Student teachers will choose one of the following options:

- English language proficiency
- ICT proficiency
- Language teaching proficiency