CURRICULUM FRAMEWORK FOR
EDUCATION DEGREE COLLEGES IN MYANMAR

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Department of Higher Education
Ministry of Education
Myanmar

TRAINING HIGH QUALITY PRIMARY AND MIDDLE SCHOOL TEACHERS

Education Degree Colleges, Myanmar

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

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 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 Strengthening pre-service Teacher Education in Myanmar (STEM) project's Education College Curriculum Review Report* (2016), which should be viewed as an accompanying contextual document to this technical one.

CONTENTS

ACRONYMS

ATEO	Assistant Township Education Officer
BA	Bachelor of Arts
B.Ed	Bachelor of Education
BSc	Bachelor of Science
BECF	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 Training
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 for 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 DEGREE COLLEGE[1] 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".[2] 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.[3]

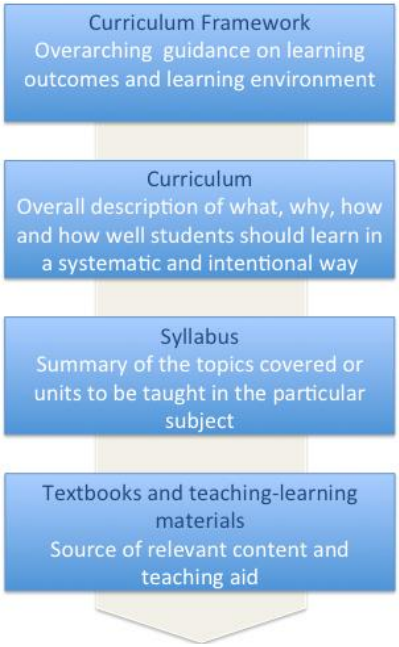

Figure 1: Diagram illustrating the overarching role of the curriculum framework for the later development of the curriculum, then syllabus, then textbooks

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 students should learn in school and therefore provides the direction on what the student teachers need to learn in order to guide their students in accordance with the expected learning outcomes;
2. the Teacher Competency Standards Framework (TCSF) which stipulates what are the expected competencies, in terms of knowledge, skills, values and attitudes, of the teachers, and therefore provides the direction on what the student teachers will be able to do in the classroom.

The curriculum framework is critical in ensuring that education colleges have the direction needed to consistently educate 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.

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 reforms[4]. It is made up of the eight core components:

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[1] There are discussions about renaming Education Colleges (ECs) as Education Degree Colleges (EDCs), as they will become higher education institutions providing degree programmes. While the final decision is being made, EC is used throughout the rest of this document.

[2] 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.

[3] 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.

[4] Full details of the training tool can be accessed: https://unesdoc.unesco.org/ark:/48223/pf0000250420_eng

1. Current context
2. Educational policy statements
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 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. 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. These policies 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 policies

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 teaching methodology, 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.
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.
Development of a Teacher Competency Standards Framework (TCSF)	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. International best practice highlights the importance of supporting teachers in their first year of service.
Design of a teacher accreditation system	An accountability structure provides a mechanism for quality improvement and quality assurance that will also raise the status of teaching.
Teacher policy for removing the ladder system and bridge programme	Creating a hierarchy within the education levels affects 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. A teacher policy ensures that all teacher-related dimensions work together in a cohesive system and can be used as a mechanism to regulate the system.
Systematising in-service training	With over 400,000 basic education 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.

	Information and Communication Technologies (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 National Education Law (NEL).
Establishment of a Teacher Education Council as a 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 quality assurance at all education levels.
Continuing Professional Development Framework for Teachers	The framework would provide the quality structure and continuing professional development pathway to maintain best training practices for teachers.
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.

CURRENT CONTEXT

Teachers are acknowledged as being the most important school level factor to quality education.[5] 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 11,000,000 school-aged children, over 400,000 teachers are needed, trained in the appropriate knowledge, skills, values and attitudes.[6] People are seldom, if ever, born effective teachers; producing quality teachers takes training, practice, and effective teacher policies.

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.[7] 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.[8]

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:

[5] 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/

[6] Total school age population taken from Population and Housing Census Date (2014).

[7] 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

[8] 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)

Economic growth: Countries with higher student achievement have higher rates of economic growth.[9] 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.[10] An increasing percentage of the Myanmar job market requires a skill-set relevant to its emerging fast-paced, diversified 21st century economy.

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 regional boundaries between labour 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.[11]

Social development: Equitable access to quality education is essential for the inclusive development of Myanmar.[12] 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, ensuring that quality education is accessible regardless of remoteness, disability, ethnicity or religion is critical. Currently over 3.5 million 5-16 year olds are excluded from the education system.[13]

Political stability: Research demonstrates that a key determinate of democracy is attainment of at least primary level education;[14] the population needs to be equipped with the competencies to make informed decisions. Achieving democracy is a gradual process and is dependent on having a sound education system to equip a nation with the knowledge, skills and attitudes needed to actively practice the responsibilities and rights of a democratic society, and to appreciate and achieve a sustainable peace.

Myanmar's education system is currently recovering from a significant period of under investment. 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.[15]

Since the change in government in 2011, there has been much investment into how to upgrade the education system; the government is committed to continue strengthening the sector. Government spending has quadrupled since 2012/13[16] and a comprehensive review

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[9] 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)

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

[11] McKinsey Global Institute. (2013). *Myanmar's Moment: Unique Opportunities and Major Challenges*, London

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

[13] 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).

[14] Glaeser E., Ponzetto G., and 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).

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

[16] 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

of the sector has been carried out highlighting the priority transformations needed.[17] 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:

There is a need to improve teacher quality to enhance learning opportunities, process and 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).[18] 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.[19] Improving teacher quality refers to both updating 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.[20] 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;[21] in the context of Myanmar's diverse demographic and geography, it is essential that teachers are equipped with the competencies 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.[22] Equitable access to quality teaching allows for inclusive development of all areas which is a requisite for a peaceful democracy.

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[17] 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).

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

[19] 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.

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

[21] 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/

[22] A 2012 UNICEF report indicates that over 70% of primary schools in Myanmar are multi-grade. Hardman, F., Stoff, C. and 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 STATEMENTS[23]

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".[24] 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 up-grading 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;[25]
- 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;[26]
- The **National Education Strategic Plan** (NESP) (2016-2021) states the priorities for teacher reform as identified by the Comprehensive Education Sector Review (CESR) process undertaken by the Myanmar Government. A whole Chapter 9 of the NESP lays out strategies on strengthening teacher education and management; and
- The **Myanmar Sustainable Development Plan** (MSDP) was launched by the Government, incorporating some of the elements of the NESP in one plan for national development across sectors. The SDG 4.c indicator for increasing the number of qualified teachers is included as an indicator in the MSDP framework, with an action plan to strengthen the quality of teacher recruitment, training, academic administration and quality assurance measures at all levels and in all forms.

Legislation

The overarching legislation informing delivery of the education system is the National Education Law (NEL).[27] 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".[28] The overall objectives for the national education system reflected in the NEL are

[23] 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.
[24] Ministry of Education, Myanmar: Vision of Education System
http://www.cesrmm.org/index.php/en/leadership1/ministryofeducation
[25] 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.
[26] National League for Democracy, 2015 Election Manifesto Section 4.v.
[27] Myanmar, National Education Law (Parliamentary Law No. 41) September 30, 2014 [amended June 2015] (ref. to as the NEL)
[28] NEL Ch1. Art. 2 (g)

summarised below.[29]

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;
- Align with international standards in terms of competencies and access to resources such as up to date technologies; and
- Be delivered through a decentralised system to ensure relevance and efficiency.[30]

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*".[31] 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".[32] Under the law, "the Ministry and related ministries shall specify the duties and rights of teachers"[33] and ensure "there shall be no discrimination among the teachers in any subjects at each education level".[34] They are also listed as responsible arranging "for upgrading teachers' quality and giving them international exposure".[35] A Teacher Education By-Law is being drafted.

LEARNING OBJECTIVES AND OUTCOMES[36]

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 and attitudes, and their successful use in teaching-learning situations) required to deliver high impact, equitable and inclusive 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 complete 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 students in Basic Education schools and as per the MoE vision "generate a learning society capable of facing the challenges of the Knowledge Age".[37]

[29] This summary looks predominantly at NEL Ch2. on National Education Objectives, Ch3. National Education Policies and Ch7. specifying curriculum and standards.
[30] 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.
[31] NEL Ch2. Art. 2 (i)
[32] NEL Ch5. Art.20 (c)
[33] NEL Ch9. Art.53 (a)
[34] NEL Ch9. Art.53 (b)
[35] NEL Ch9. Art.52
[36] 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.
[37] Ministry of Education, Myanmar: Vision of Education System.
http://www.cesrmm.org/index.php/en/leadership1/ministryofeducation

The objectives for an Education College (EC) are:[38]

1. To *train and educate* full-fledged teachers to carry out their duties and responsibilities in the construction of the new Education system, whom the parents of their students 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 students 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** of the four-year degree programme, which the teacher educators aim to achieve, align directly with what is expected in the classroom. These expectations are laid out in the National Curriculum Framework for Basic Education.[39] 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 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 students' 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 and after an induction to practise teaching, a student teacher is expected to achieve **learning outcomes** detailing what student teachers should be able to do. In particular, they are expected to meet the minimum requirements for the 'beginner' level of the draft Teacher Competency Standards Framework (TCSF).[40] 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 mobilizes their knowledge, skills and values together to perform effectively.[41]

[38] 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)].

[39] Myanmar National Curriculum Framework for Basic Education (6th version).

[40] The Myanmar Teacher Competency Standards Framework (Draft 2.2, 2018)

[41] 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

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, values, and attitudes.[42] 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 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".[43]

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

[42] European Commission. (2013). *Supporting teacher competence development for better learning outcomes.* European– Education and Training.

[43] The Myanmar Teacher Competency Standards Framework (Draft 2.2, 2018) p.9

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 specialization tracks to allow student teachers to master the relevant teaching skills.[44]

STRUCTURE OF THE TEACHER EDUCATION SYSTEM

The teacher education system prepares teachers to deliver 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). 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.

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. [45][46]

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 to ethnic minorities a five-year B.Ed qualifying teachers to teach in high school;[47] and
3. Education Colleges (ECs) provide a four-year Bachelor's degree[48] qualifying teachers to teach in primary and middle school; the ECs may be affiliated to a UoE or an arts and science university, subject to MoE's decisions.

[44] 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.

[45] 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.

[46] 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.

[47] 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.

[48] There have been discussions about whether ECs will grant BA/BSc (Education) or B.Ed degree, subject to MoE's decisions.

The teacher education system aims to be flexible and provide different learning pathway options. These can be categorised as concurrent or consecutive.[49] 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 students.[50] [51]

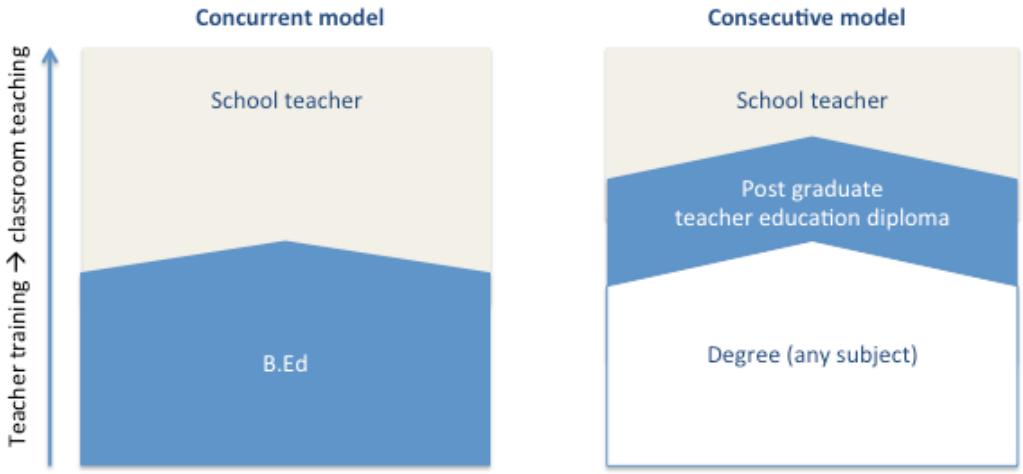

Figure 2: Overview of different teacher education learning pathways

The ECs only provide the four-year Bachelor's degree (concurrent model) and the post-graduate diploma such as Pre-service Primary Teacher Training (PPTT), which is a 6.5-month college-based course for degree holders, and Correspondence Course (PATC) in selected ECs, which is a 1-year distance learning with 1-month college-based course for degree holders (consecutive model). 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 specialization learning pathways ensure that teachers can become expert in a specific stage of a child's development.

1. 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).
2. 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.

[49] 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.

[50] There are a number of different options available to delivering consecutive 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.

[51] 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.

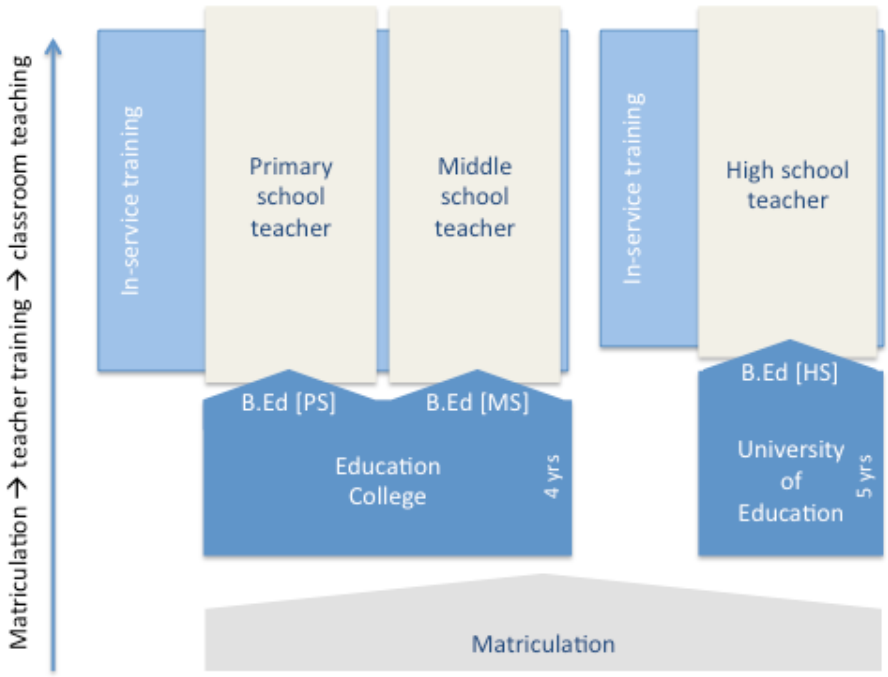

Figure 3: Overview of teacher education specialization pathways

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 periods. To earn a credit unit a student teacher needs to attend the requisite number of contact periods and pass the module assessment.

Some possible bridging options such as whether EC student teachers can move to study UoEs or other arts and science universities and whether EC student teachers in one specialization track can later change to study in another specialization track will be subject to MoE's decisions.

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 and equitably 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 knowledge, skills and values in teaching and learning situations, with specific age groups. Because the focus is on all components of a 'competency'- knowledge, skills, values and attitudes and their adequate application, it is referred to as a competency-based curriculum.[52]

[52] 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

Accordingly, a competency-based curriculum is learner-centred and adaptive to the changing needs of students, teachers and society.

The competency-based curriculum structure is consistent with an inclusive education approach, in that various teaching strategies may be used to support students with differing backgrounds, needs and characteristics to achieve the intended competencies. Addressing skills and attitudes in addition to knowledge also better prepares student teachers to integrate key concepts of inclusion and equity into their educational practices, as well as to educate for peace and sustainable development on a daily basis– in line with national education objectives to develop well-rounded citizens with the capacity to think creatively and critically and to preserve the diversity of Myanmar's culture. This can only be accomplished through the shared understanding to consider "individual differences not as problems to be fixed, but as opportunities for democratizing and enriching learning[53]". Education for inclusion and equity, and for peace and sustainable development is a process, requiring educators to apply a number of competencies in their classroom practice.

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.[54] 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: Educational Studies, Curriculum and Pedagogy Studies, Practicum and Reflective Practice and Essential Skills.[55] 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.

In particular, under the second learning area "Curriculum and Pedagogy Studies", there are 11 subjects which student teachers are required to take in Cycle 1 (Year 1 and 2). These are:

- Myanmar
- English
- Mathematics
- Science
- Social Studies (History and Geography)
- Physical Education
- Life Skills

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.

[53] UNESCO. (2017). A guide for ensuring inclusion and equity in education. UNESCO: Paris. P. 13.

[54] 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.

[55] See Section on International Comparisons in the UNESCO STEM Education College Curriculum Review (2016). pp.36-37.

- Art (Performing Art and Visual Art)
- Morality and Civics
- Local Curriculum
- ICT (Information Communication Technology)

In Cycle 2 (Year 3 and 4), please refer to "Overview of curriculum subject per specialization track" below about the subjects offered under the second learning area "Curriculum and Pedagogy Studies".

Figure 4: Overview of the four-year curriculum structure

Overview of specialisation tracks

At the end of Year 2, student teachers can choose to specialise in either primary school or middle school teaching.[56] The primary school track includes kindergarten teaching.

The course is structured so that Year 1 and Year 2 are exploratory years that cover core content (relevant to both primary and middle school teaching).[57] The student teachers spend time in both primary and middle schools during their Year 2 practicum, receive advice from teacher educators and have the opportunity to hear from earlier cohorts who have already gone 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 selection for each track is based on:

- the student teacher's preference for teaching primary or middle school level; and
- teacher demand for each educational level (this is jointly coordinated by DHE and DBE).

[56] 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).

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

Overview of curriculum subject per specialisation track

Primary school teachers are trained 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.[58] The focus of training is to ensure teachers can effectively teach early literacy and numeracy, the foundational skills needed for further learning.[59] The proposed subjects, which are under the "Curriculum and Pedagogy Studies" learning area, with reference to the Basic Education Curriculum Framework are:

- Myanmar
- English
- Mathematics
- Science
- Social Studies (History and Geography)
- Physical Education
- Life Skills
- Art (Performing Art and Visual Art)
- Morality and Civics
- Local Curriculum
- ICT (Information Communication Technology)[60]

Middle school teachers are trained as subject area specialists. They are trained to effectively teach the three core subjects (Myanmar, English, and Mathematics) and a choice of several individual subjects in the elective subject areas A and B from the list below. While Economics is not taught in middle school but in high school based on the Basic Education Curriculum Framework, it is suggested to be included in the middle school specialization track to prepare student teachers for teaching this subject if necessary. Student teachers should learn both science and arts from the elective subject areas so that there is flexibility in teacher deployment in basic education schools. They also continue to have support for developing their skills in use of ICT in teaching and learning. Selection for the elective is based on three different criteria:

- the student teacher's subject area preference
- their Year 2 assessment marks
- demand for subject-teachers (again this is jointly coordinated by DHE and DBE)

Student teachers will be required to study the following subjects:

- Myanmar
- English
- Mathematics
- ICT

[58] The list of subjects directly reflects the subjects listed in the Myanmar National Curriculum Framework (6th version). It is important to note that any changes to the Basic Education Curriculum Framework need to be reflected in the EC curriculums.

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

[60] 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 will become increasingly relevant in all Basic Education schools.

They also select three subjects from subject area A and three from subject area B. Within subject area A, student teachers are required to select at least one science subject and at least one arts subject.

- Subject area A (Choose three subjects, at least one science and at least one arts subject): Science: Physics, Chemistry, Biology
  Arts: History, Geography, Economics
- Subject area B (Choose three subjects): Art, Life Skills, Morality and Civics, Physical Education, Local Curriculum[61]

Figure 5 illustrates the exploratory course content in Year 1 and Year 2 and then the split between core, specialization track content in Year 3 and 4.

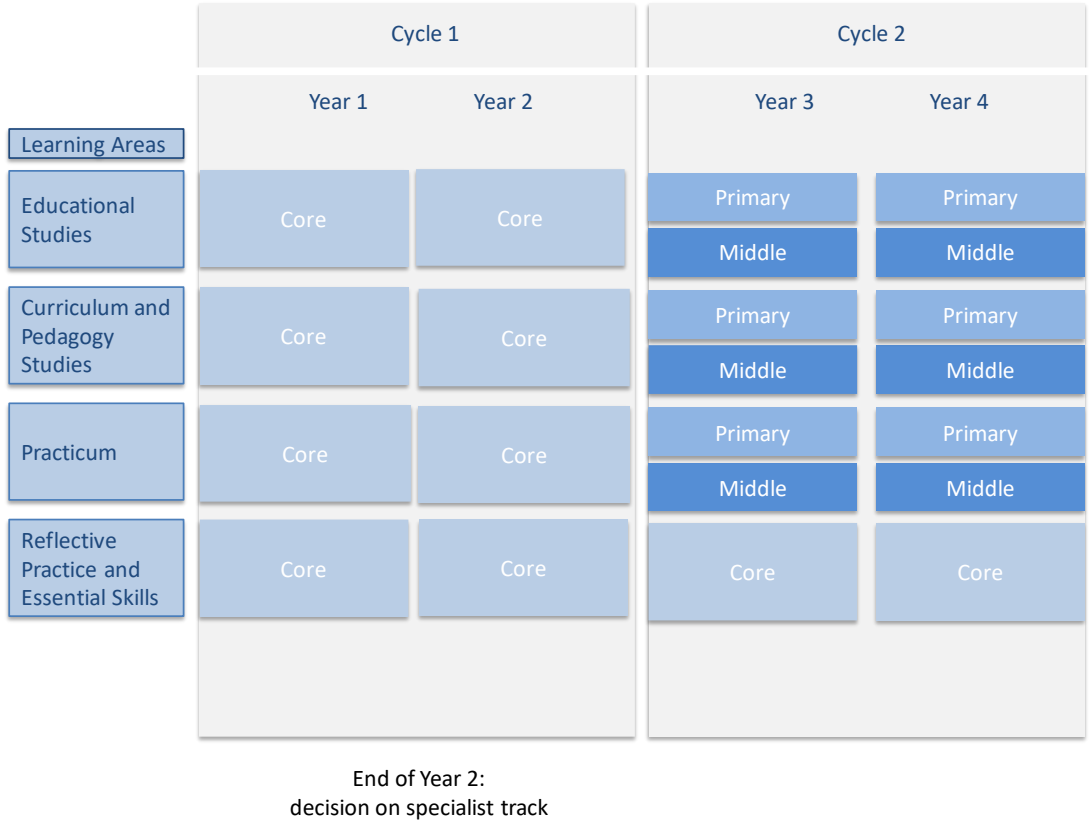

Figure 5: Overview of the specialization tracks in regards to the learning areas

Overview of the EC curriculum modular credit system

The EC degree course is credit-based[62]. 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.

[61] 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.

[62] Credit is a measure of student workload based on the time necessary to complete a given teaching/ learning unit (Educational structures, Learning outcomes, Workload and the Calculation of ECTS credits, p. 10: http://unideusto.org/tuningeu/workload-a-ects/177-educational-structures-learning-outcomes-workload-and-the-calculation-of-ects-credits.html)

Like the UoE system, a student teacher needs to earn 21 to 26 credit units in a semester of 16 weeks to qualify with an EC Bachelor's degree. The total credits for the four year EC Bachelor's degree is between 186 and 197 credits, with the five year UoE B.Ed consisting of 200 credits[63].

Each module is allocated a certain number of credit units based on the % of periods 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 and Year 2 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. The credits earned in Cycle 1 is equivalent to diploma standard and the credits then earned in Cycle 2 is degree standard.

The EC credit system has a value of 24 periods per credit unit of on-campus or practicum work – 480 periods per semester divided by 20 credit points per semester. The outline of the credit system is provided in Annex 2[64].

Each module is then coded based on the code for the relevant learning area, the relevant year and the relevant semester. All codes start with EDU to indicate that these modules are for the education degree.

For example: EDU 1101 = Module for Understanding Educational Studies Year 1 Semester 1

Overview of the timetable

The four-year course will be delivered through eight semesters. Each semester is approximately 80 days including a compulsory number of days of practicum per semester. Each week there are up to 30 teaching periods[65]. The duration of each period is 50 minutes.

Table 3: Timetable for four-year course

No. of years	4 years
No. of semesters	8 semesters (2 per year)
No. of days per semester	80 days (16 weeks)
No. of instructional periods per week	30 periods

[63] In comparison, among Universities in Europe a consensus has been developed that an undergraduate degree consists of 180 – 240 credits, where one credit is equal to 25-30 periods of student work (Educational structures, Learning outcomes, Workload and the Calculation of ECTS credits, link above).

[64] In the current UoE credit system, credit units per semester between 18-21 credits across 10 semesters, with the number of periods of lectures/ tutorials being between 27-29 periods per week (Yangon and Sagaing Universities of Education, Bachelor of Education (BEd) Course Programme). Therefore, on average the UoE credit system has 20 credit units per semester based on an average of 28 periods per week. In comparison, the EC degree number of periods per week is 30 periods. The UoE credit system has a value of 22.4 periods of lectures/ tutorials – 448 periods per semester divided by 20 credit points per semester (1 credit point valued as 1 hour of lecture or 2 periods of tutorials). The EC credit system has a value of 24 periods per credit unit of on-campus or practicum work – 480 periods per semester divided by 20 credit points per semester. Due to some rounding off, the new EC credit system will have 21 to 26 credit points per semester. For the four-year degree programme, student teachers are expected to take a total of 186 to 197 credit points. For details, please refer to Annex 2.

[65] 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.

No. of instructional periods per day	6 periods

In terms of the timetable, the three learning areas, Educational Studies, Curriculum and Pedagogy Studies and Reflective Practice and Essential Skills, will have allocated periods weekly. 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.

Table 4: Breakdown of timetable periods per week of on-campus taught modules

Number of periods per week		**Year 1**		**Year 2**	
		S1	S2	S1	S2
Educational Studies	Understanding Educational Theory	10	10	8	8
Curriculum and Pedagogy Studies	Teaching the BE Curriculum	19	19	21	21
Reflective Practice and Essential Skills	Developing Reflective Practice and Essential Skills	1	1	1	1
Total Periods per week:		30	30	30	30

		Year 3		**Year 4**	
		S1	S2	S1	S2
Educational Studies	Applying Educational Theory	7	7	7	7
Curriculum and Pedagogy Studies	Mastering the BE Curriculum	22	22	22	22
Reflective Practice and Essential Skills	Proficiency in Reflective Practice and Essential Skills	1	1	1	1
Total Periods per week:		30	30	30	30

The proposed breakdown of periods per subject under the Curriculum and Pedagogy Studies (CPS) module is provided in Annex 1, based on the time allocation in primary and middle school curricula.

The amount of time allocated to Educational Studies and Curriculum and Pedagogy Studies differs over the different semesters while the amount of time allocated to Reflective Practice and Essential Skills remains the same over the different semesters. This is due to the increased time spent in the fourth learning area - practicum - and the progressive nature of the training delivered. There is no weekly period for Practicum; however, it is delivered in blocs or individual days in some weeks in different semesters.

Table 5: Practicum in Year 1 and Year 2[66]

Practicum: Teaching Practice				
Year 1	Semester 1	Bloc 1: Lesson study	5 days (1 week)	February
		Bloc 2: Lesson study	5 days (1 week)	February
	Semester 2	Bloc 3: Lesson study	5 days (1 week)	August
		Bloc 4: Practice/partner school	5 days (1 week)	August
Year 2	Semester 1	Bloc 5: Lesson study	5 days (1 week)	February
		Bloc 6: Lesson study	5 days (1 week)	February
	Semester 2	Bloc 7: School placement	20 days (4 weeks)	August
		TOTAL:	**50 days**	

Practicum in Year 3 and Year 4

Practicum: Teaching and Learning				
Year 3	Semester 1	Bloc 8: Lesson study	5 days (1 week)	February
		Bloc 9: Lesson study	5 days (1 week)	February

[66] The student teachers spend time in both primary and middle schools during their Year 2 practicum.

	Semester 2	Bloc 10: School placement	30 days (6 weeks)	July-August
Year 4	Semester 1	Bloc 11: Lesson study	20 days (4 weeks)	February
	Semester 2	Bloc 12: Practice/partner school	20 days (4 weeks)	August
		TOTAL:	**80 days**	

Overview of the modules

This section provides a brief rationale and an overview of the content for each module. Please refer to Annex 2 about the number of teaching periods and credits for each module in different semesters.

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 2, student teachers make their decision on whether to specialise in primary or middle school teaching.

Educational Studies (ES)
Module 1.1 Understanding Education Theories

The objective of this module is to introduce student teachers to the theoretical foundations of pedagogy and childhood development and *how* this can be applied in the classroom to create safe and inclusive learning environments and ensure effective and equitable learning for all students.[67]

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 students' 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 covers the following inter-related strands:

- Pedagogical Theory and Practice
- Strategies for Effective Learning
- Planning and Preparation
- Assessment
- Creating a Learning Environment
- Disciplines of Education
- Professionalism

[67] 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.

This learning area overall mainstreams an inclusive education approach by introducing specific strands to prepare student teachers to firstly understand the value of individual differences in classrooms and the society, and then be able to apply different approaches that are equity-based, meeting the diverse needs of each student. This also leads to the promotion of education, for peace and sustainable development with its focus on contextualized, personalised and student-centred learning, solely grounded on a holistic understanding of child development theories

Moreover, it will include a strand to prepare student teachers for teaching Kindergarten level. The content in Year 1 and Year 2 (the exploratory years) is applicable to all student teachers. From Year 3 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 on Professionalism.

Curriculum and Pedagogy Studies
Module 2.1 Teaching the BE curriculum

The objective of this module is to provide the opportunity for student teachers to integrate educational theory and psychologies, subject knowledge and knowledge of pedagogies. Through this module, student teachers will develop their confidence in relevant subject matter knowledge and learn how to translate this knowledge in a way that students will be able to understand (pedagogical content knowledge).[68] It will further allow them to learn, explore and practice how they can adjust subject matter content and their delivery to meet the needs of the students in their classes.

Within the context of their students' learning process, student teachers will look at the specific subject areas and determine strategies for the organisation of content, developing higher order thinking, and encouraging students 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 students 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 to develop an understanding of how to deal with common subject misconceptions and topics that can be described as hard to teach, and how to adapt subject materials to fit the needs of students with different backgrounds, needs and abilities.

The module is organised by the list of subjects specified in the Basic Education curriculum for each level. In Year 1 and 2, all student teachers will learn how to teach content that is relevant to both primary and middle school. From Year 3 onwards, the different specialization tracks directly reflect the expectations in the Basic Education Curriculum Framework for each education level.

Table 6: List of subjects under the Curriculum and Pedagogy Studies learning area

[68] 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, 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.

<table>
<tr><th>Year 1 and Year 2:</th><th colspan="2">Year 3 and Year 4:</th></tr>
<tr><td>Exploratory years
Academic standard equivalent to primary and middle school level</td><td>Primary school track
Academic standard equivalent to primary and middle school level</td><td>Middle school track
Academic standard equivalent to middle and high school level</td></tr>
<tr><td>Myanmar</td><td>Myanmar</td><td>Core: Myanmar</td></tr>
<tr><td>English</td><td>English</td><td>Core: English</td></tr>
<tr><td>Mathematics</td><td>Mathematics</td><td>Core: Mathematics</td></tr>
<tr><td>Science</td><td>Science</td><td rowspan="9">Subject area A (Choose three subjects, at least one science and at least one arts subject):
• Science: Physics, Chemistry, Biology
• Arts: History, Geography, Economics

Subject area B (Choose three subjects):
Art, Life Skills, Morality and Civics, Physical Education, Local Curriculum</td></tr>
<tr><td>Social Studies</td><td>Social Studies</td></tr>
<tr><td>Art</td><td>Art</td></tr>
<tr><td>Morality and Civics</td><td>Morality and Civics</td></tr>
<tr><td>Life Skills</td><td>Life Skills</td></tr>
<tr><td>Physical Education</td><td>Physical Education</td></tr>
<tr><td>Local Curriculum</td><td>Local Curriculum</td></tr>
<tr><td>ICT</td><td>ICT</td><td>ICT</td></tr>
</table>

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

Practicum
Module 3.1 Practicing Teaching

The practicum[69] is central to this course as it brings together the previous two modules. The objective of Practicum is for student teachers to demonstrate their understanding of the course content by applying it effectively in a supportive and real classroom setting.[70]

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 daily journal of their teaching experience, ideas they have developed and how they have impacted on their students' learning.

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

- Lesson study (on-campus at EC)
- Practice/partner schools (schools close to EC)
- School placements (longer-term placements)

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

[70] 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.

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.[71]

The objective of the practicum is for the student teachers to have the opportunity to practice teaching in a supportive and real classroom setting. It is therefore important that the practicum is scheduled at a time when they are prepared with essential competencies and they can actually teach. Practicum school placements should not be scheduled between February and May when schools are either focused on examinations or are on school holidays. The longer-term practicum periods will be organised during the months of July and August. The student teachers spend time in both primary and middle schools during their Year 2 practicum in order to be able to make a more informed choice in regard to specialising as a primary or a middle school teacher.

Reflective Practice and Essential Skills
Module 4.1 Developing Reflective Practice and Essential Skills

The objective of this module is to ensure future teachers are confident in reflective practice skills and other essential skills needed to teach effectively and are able to model 21st century skills.[72] The module provides the opportunity for student teachers to focus on reflecting on how to develop their own skill sets so that they can apply them in the classroom. The Teacher Competency Standards Framework (TCSF) is used as their reflective framework throughout.

The essential skills included are:

1. Reflective practice skills
    - Use of portfolio based on the TCSF
2. Communication skills
    - Verbal communication and presentation skills
    - Written communication and grammar
3. Research skills
    - Navigating resources
    - Reading skills
    - Action research skills
4. Creative and critical thinking skills
    - Problem solving and numeracy skills
5. Leadership and teambuilding skills, including for community development
6. ICT skills
    - ICT literacy
    - ICT in the classroom

[71] 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.

[72] '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.

7. Languages
    - Myanmar
    - English
    - Local ethnic languages (decided at regional level)

The strands and sub-strands of the modules are at Annex 4.

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.[73] 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.

Education Studies
Module 1.2 Applying Educational Theories

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 students 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.[74] 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.

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 students to engage with the content and take autonomy over their learning.

As part of this module, student teachers are asked to analyse the specific needs of a particular group within the student population, (i.e. gifted and talented, with special needs, disaffected or reticent, discriminated based on gender, ethnicity, religion, etc.,, resource constrained, multi-lingual, etc.) and develop strategies to ensure that all learners are provided with the

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

[74] 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.

equal opportunities to access to quality and equitable education, and that would then enable them to participate successfully as part of an inclusive classroom and further an inclusive society.

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, including a combination of guided lesson study in the college together with Teacher Educators and school placements, 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.

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 students and practicing their skills, the more confident they will be and able to respond to different situations.

Student teachers will be encouraged to use this opportunity to apply the theories, competencies and teaching and learning materials they have developed in previous modules on the course, and continue to determine how these could be improved, contextualized and personalized in accordance with the needs of their students. 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.

Reflective Practice and Essential Skills
Module 4.2 Proficiency in Reflective Practice and Essential Skills

In this module, student teachers will be able to focus on becoming a confident reflective practitioner of own learning and be proficient in essential skills for teaching and learning. Student teachers can choose one of the strands introduced in the foundation years to focus on during an action research project.

Student teachers can have the opportunity to improve their language skills in English, Myanmar and local ethnic languages (decided at regional level) so that they can support an inclusive approach to address students' need in integrating diverse language in instruction, particularly in the earlier years of schooling.

STANDARDS OF RESOURCES REQUIRED FOR IMPLEMENTATION

Teacher Educators (TEs)

Required skills

The TEs in the ECs are responsible for training 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 teaching primary and middle school students. 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.[75]

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; and
- An appreciation of diverse student teacher needs and the value of inclusive classrooms where participation and achievement is possible for all.

MoE will strive to align the education qualification requirements of EC teacher educators with those of similar positions in UoEs and other higher education institutions.

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. This will be further elaborated in the continuing professional development framework for teacher educators.

Professional Competency Standards

The Teacher Educator competency standards do not yet exist. However, such competency standards can provide the quality agenda and shed light on the continuing professional

[75] The UNESCO STEM project on Curriculum Reform in the ECs is to develop a continuing professional development framework for how to train the teacher educators in effectively delivering this new approach to teacher education.

development framework for TEs. The teacher educator specific framework[76] 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; and
- Training is a major part of a TEs' role, and supervision, classroom observation, constructive feedback and mentoring and coaching are key skills.

The framework can also act 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 emerging importance of ICT. Professional development allows TEs to pursue areas of particular interest such as special 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, but it also encompasses a far greater range of activities such as:

- Mentoring
- Professional Learning Communities, where diversity is respected
- 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:[77]

- Effective training of adults
- Effective practice 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 (needs, characteristics, ability, motivation, gender, ethnicity, cultural background, socio-economic circumstances and geographical location)
- Involvement in on-going reform and action research

[76] 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.
[77] 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.

All TEs and education college staff are provided with professional development opportunities, with the 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 one.

Facilities

Capacity

The EC Bachelor's degree is a four-year programme so at any 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.

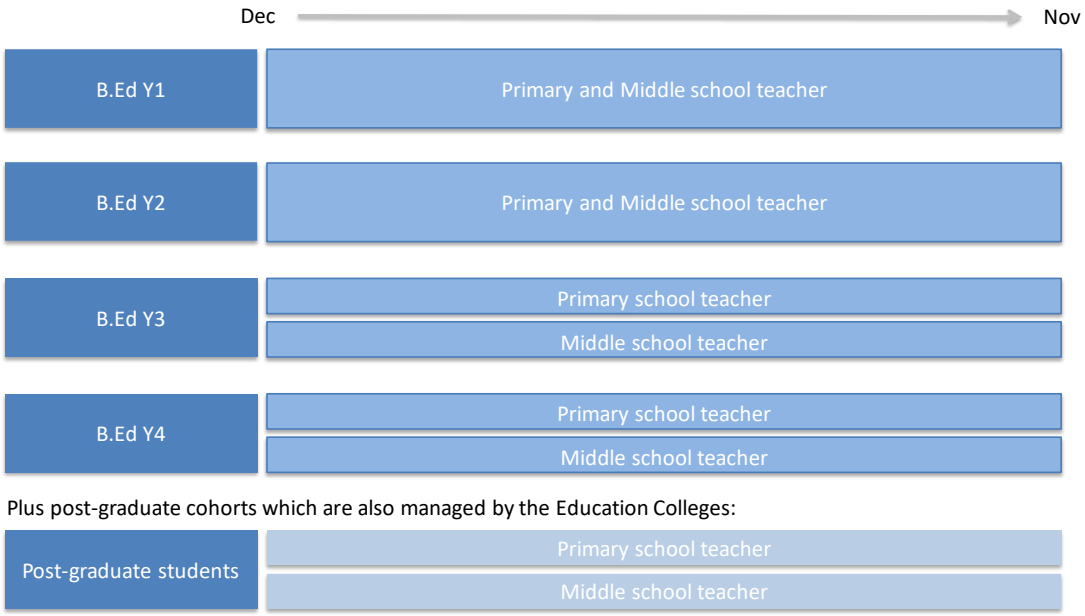

Figure 6: Overview of the different courses and cohorts delivered simultaneously in one Education College

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. Classroom furniture should be conducive to an interactive approach to teaching and learning with moveable furniture to facilitate group and project work. Classrooms should also be accessible to those with different needs.

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.

ICT (Information and Communications 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 learning 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 students 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 Periods. travel time to allow for daily commute) provides cost-effective opportunities for practice teaching in a real life situation.[78]
- 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.[79] The in-school mentors report directly to the TEs in the ECs.[80]

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).[81]

[78] 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.

[79] 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.

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

[81] 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 syllabus[82]

Each education college should have a 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 educator guides.[83] A teacher educator guide is developed for the following learning areas:

- Learning area: Educational Studies
- Learning area: Curriculum and Pedagogy Studies
    - Myanmar
    - English
    - Mathematics
    - Science
    - Social Studies (History and Geography)
    - Physical Education
    - Life Skills
    - Art (Performing Art and Visual Art)
    - Morality and Civics
    - ICT (Information Communication Technology)

There will be no teacher educator guide for the following learning areas. Student teachers and teacher educators use the same handbooks for the following learning areas. These handbooks include both reading text and facilitation guides on learning activities, targeting both student teachers and teacher educators:

- Learning area: Curriculum and Pedagogy Studies
    - Local Curriculum
- Learning area: Practicum
- Learning area: Reflective Practice and Essential Skills

These teacher guides should be characterised by:

- Strategies to involve student teachers in critically analysing and improving textbook materials;

[82] 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.

[83] 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.

- Strategies to use interactive and communicative activities to promote learner-centred learning;
- Suggestions to contextualize and adapt the curriculum to meet the needs of Myanmar students;
- Suggestions on how to use materials available in the local environment to enhance learning e.g. the creation of simple Science experiments and Mathematics activities; and
- Information about a range of accessible resources that complement to the content of textbook.

Student teacher textbooks

Every student teacher should have access to a full set of student teacher textbooks. A student teacher textbook is developed for the following learning areas:

- Learning area: Educational Studies
- Learning area: Curriculum and Pedagogy Studies
    - Myanmar
    - English
    - Mathematics
    - Science
    - Social Studies (History and Geography)
    - Physical Education
    - Life Skills
    - Art (Performing Art and Visual Art)
    - Morality and Civics
    - ICT (Information Communication Technology)

There will be no student teacher textbook for the following learning areas. Student teachers and teacher educators use the same handbooks for the following learning areas. These handbooks include both reading text and facilitation guides on learning activities, targeting both student teachers and teacher educators:

- Learning area: Curriculum and Pedagogy Studies
    - Local Curriculum
- Learning area: Practicum
- Learning area: Reflective Practice and Essential Skills

These student teacher textbooks should be characterised by:

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

To maintain the standards and relevance, both textbooks and teacher guides should be reviewed frequently. This review should be led by the Senate of the universities ECs are

affiliated to, with the National Curriculum Committee having an oversight responsibility, and should take into account the 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 subject and methodology knowledge and skills as well as to further focus on their personal development and interests. An e-library should be established to allow teacher educators and student teachers to access online teaching and learning resources, relevant to the lessons.

TEACHING METHODOLOGY

The teaching methodology reflects the integrated nature and competency-based design of the curriculum structure; the strategies are practical and taught in a way that combines knowledge, skills, values and attitudes and their effective application in learning situations. When new concepts are learned, those newly acquired competencies should then be applied and reflected on:[84]

1. Learn (plan what and how to teach)
2. Apply (practice teaching and learning behaviours)
3. Reflect (evaluate teaching practice)[85]

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, educational theory, and the whole vision for the curriculum. This knowledge provides the basis of planning and preparing for teaching and the confidence to deconstruct knowledge into basic concepts for teaching.

[84] 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.

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

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.[86] 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.[87]

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 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. 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 personalised 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.[88]

The teaching methodologies should be appropriate for **adult learners.**[89] 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.

[86] 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

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

[88] 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.

[89] Adult learning differs from the way children learn and emphasises prior knowledge and experiential learning.

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 classes covering several periods (each period 50 minutes) but can also be used with shorter periods within the 50 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 between 12% and 25% of instructional time is spent for lesson study in the college or in schools to experience real-life classrooms. 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 are expected to keep a daily journal 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.

- TEs are responsible for preparing the student teachers through lesson preparation and practicing delivery.
- 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 week, student teachers have two timetabled periods 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.**[90] 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.

[90] 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))

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.[91] The student teachers will be able to take these materials with them as they go into their first year of teaching (induction year).

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 constructive feedback about student teachers' learning and represents the crucial link between learning outcomes, learning process, 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 provide diagnostic and evaluative information about 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).[92] Student teachers will be expected to demonstrate relevant pedagogic and subject expertise. They will be assessed by Teacher Educators at their respective EC, under the leadership of the Principal and the overall responsibility of the Senate of the universities ECs are affiliated to, 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.

[91] 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.

[92] 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.

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; it should be used to identify and support achievement across different learning needs and capacities. 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 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 30 per cent.[93] The weighting reflects a greater emphasis on improved practise in the classroom, as they will have to demonstrate inputs from the course through this. The final assessment of the Practicum will be done by the Teacher Educators at the student teacher's respective EC, under the leadership of the Principal and the overall responsibility of the Senate of the universities ECs are affiliated to, taking into consideration evaluation reports from teachers at Practicum partner and placements schools and township education officers.

Table 7: Summative Assessments Tools by Learning Area

Learning Area	Summative Assessment Tools [94]	% Weighting
Educational Studies	• 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	30%

[93] 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.

[94] The details of the assessment tools are 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)

Curriculum and Pedagogical Studies	• Portfolios of teaching practice • Oral presentations examinations (mid semester and final) • Competency and knowledge-based chapter end tests • Action research assignments • Observed lesson demonstrations	35%
Practicum	• Portfolios of teaching practice: lesson plans, materials development, units of work, assessment tools • Case studies • Unit of Learning Review • Practicum Journal/ Learning Journal (reflective practice) • Observed lesson demonstrations	25%
Reflective Practice and Essential Skills	• Competency-based examination • Self-evaluation sheet: strengths, weaknesses; improvement plan • Appraisal with mentor	10%

The assessment marks are converted to grade points (GP)

1. Under 35% = 1
2. From 35% - 49% = 2
3. From 50% - 64% = 3
4. From 65% - 74% = 4
5. From 75% - 100% = 5

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

$$GPA = \frac{\Sigma \text{ (Credit Unit x Grade Point)}}{\Sigma \text{ Credit Unit}}$$

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

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

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ANNEXES

Annex 1: Proposed subject periods

Summary of Basic Education Curriculum Framework – primary and middle school level

	Curriculum structure	Teaching and learning approaches	Types of assessment
Primary School	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 Lower primary: 840 Periods per year Upper primary: 960 Periods per year Local curriculum not more than five periods per week and 120 periods per year	*Focus on child centred approach*: 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	Classroom-level assessment (formative) School-level assessment (end of term and end of year exams) Assessment at the completion of each basic education level National level assessment
Middle School	11 learning areas: (same as above but Social Studies are split into History and Geography) Focus on 21st century skills 1080 instructional periods per year Local curriculum not more than four periods per week and 108 periods per year	*Focus on competency-based approach*: Teachers to be selective in their use of a variety of teaching methods as appropriate to each subject and lesson	(same as above)

EC degree - Foundation Year 1 and Year 2

Curriculum and Pedagogy Studies (CPS)	Year 1				Year 2			
	S1		S2		S1		S2	
	W	S	W	S	W	S	W	S
Myanmar	3	42	3	42	4	56	4	48
English	3	42	3	42	3	42	3	36
Mathematics	3	42	3	42	3	42	3	36
Science	2	28	2	28	3	42	3	36
Social Studies	2	28	2	28	2	28	2	24
Art	1	14	1	14	1	14	1	12
Morality and Civics	1	14	1	14	1	14	1	12
Life Skills	1	14	1	14	1	14	1	12
Physical Education	1	14	1	14	1	14	1	12
Local Curriculum	1	14	1	14	1	14	1	12
ICT	1	14	1	14	1	14	1	12
Total periods:	19	266	19	266	21	294	21	252

* S = semester; W = week; The differences in the number of weeks in each semester are due to the number of weeks which are reserved for practicum learning area. For instance, there are 16 weeks in semester 2 of Year 2. Four weeks is reserved for practicum learning area while 12 weeks is for teaching and learning on normal EC schedule. Within these 12 weeks, two weeks is reserved for summative assessments.

EC degree - Primary School Specialisation

Curriculum and Pedagogy Studies (CPS)	Year 3				Year 4			
	S1		S2		S1		S2	
	W	S	W	S	W	S	W	S
Myanmar	4	56	4	40	4	48	4	48
English	3	42	3	30	3	36	3	36
Mathematics	3	42	3	30	3	36	3	36
Science	3	42	3	30	3	36	3	36
Social Studies	3	42	3	30	3	36	3	36
Art	1	14	1	10	1	12	1	12
Morality and Civics	1	14	1	10	1	12	1	12
Life Skills	1	14	1	10	1	12	1	12
Physical Education	1	14	1	10	1	12	1	12
Local Curriculum	1	14	1	10	1	12	1	12
ICT	1	14	1	10	1	12	1	12
Total periods:	22	308	22	220	22	264	22	264

* S = semester; W = week

EC degree - Middle School Specialisation

Curriculum and Pedagogy Studies (CPS)	Year 3				Year 4			
	S1		S2		S1		S2	
	W	S	W	S	W	S	W	S
Myanmar	3	42	3	30	3	36	3	36
English	3	42	3	30	3	36	3	36
Mathematics	3	42	3	30	3	36	3	36
ICT	1	14	1	10	1	12	1	12
Electives[95]	12	168	12	120	12	144	12	144
Total periods:	22	308	22	220	22	264	22	264

* S = semester; W = week

[95] Student teachers select three subjects from subject area A and three from subject area B. Within subject area A, student teachers are required to select at least one science subject or at least one arts subject.
Subject area A (Choose three subjects, at least one science and at least one arts subject):
Science: Physics, Chemistry, Biology
Arts: History, Geography, Economics
Subject area B (Choose three subjects): Art, Life Skills, Morality and Civics, Physical Education, Local Curriculum
There are three periods per week for each of the three subjects in Subject area A while there is one period per week for each of the three subjects in Subject area B.

Annex 2: Overview of modular credit based system[96]

The following modular credit based system is subject to MoE's decisions.

First Year EC Bachelor's degree

First Year — Semester 1

Sr. No.	Module No.	Name of Module	Credit points per semester	Periods per semester[97]
1	EDU1101	Understanding Educational Theories - 1	6	140
2	EDU1102	Teaching BE Curriculum Subjects – 1	14[98]	266
		Myanmar	2	42
		English	2	42
		Mathematics	2	42
		Science	1	28
		Social Studies	1	28
		Art	1	14
		Morality and Civics	1	14
		Life Skills	1	14
		Physical Education	1	14
		Local Curriculum	1	14
		ICT	1	14
3	EDU1103	Practising Teaching/Primary - 1	3	60
4	EDU1104	Developing Reflective Practice and Essential Skills -1	1	14
		Total	**24**	**480**

First Year — Semester 2

Sr. No.	Module No.	Name of Module	Credit points per semester	Periods per semester
1	EDU1105	Understanding Educational Theories - 2	6	140
2	EDU1106	Teaching BE Curriculum Subjects – 2	14	266
		Myanmar	2	42
		English	2	42
		Mathematics	2	42
		Science	1	28
		Social Studies	1	28
		Art	1	14
		Morality and Civics	1	14

[96] Credit units are calculated by number of periods of workload per semester divided on an average of 24 periods per credit unit. See explanation of the modular credit system p. 21.

[97] The assumption is that there are six periods (50-minute each) per weekday at EC.

[98] These credit points per semester are rounded off from 1.75, 1.16 and 0.58 to 2, 1 and 1 respectively, reflecting feedback received from the Board of Studies to round off the credit points. As mentioned under the modular credit system p. 27-29, each credit given in the tables are then calculated by dividing the number of periods per module or subject by 24. Therefore, for a subject that has 42 periods per semester, divided on 24 periods, this has the equivalent of 1.75 credits. By rounding off, the corresponding credit points per semester are 2.

		Life Skills Physical Education Local Curriculum ICT	1 1 1 1	14 14 14 14
3	EDU1107	Practising Teaching/Primary - 2	3	60
4	EDU1108	Developing Reflective Practice and Essential Skills -2	1	14
		Total	**24**	**480**

Second Year EC Bachelor's degree

Second Year Semester 1

Sr. No.	Module No.	Name of Module	Credit points per semester	Periods per semester
1	EDU2101	Understanding Educational Theories - 1	5	112
2	EDU2102	Teaching BE Curriculum Subjects – 1 Myanmar English Mathematics Science Social Studies Art Morality and Civics Life Skills Physical Education Local Curriculum ICT	15 2 2 2 2 1 1 1 1 1 1 1	294 56 42 42 42 28 14 14 14 14 14 14
3	EDU2103	Practising Teaching/Primary and Middle - 1	3	60
4	EDU2104	Developing Reflective Practice and Essential Skills -1	1	14
		Total	**24**	**480**

Second Year Semester 2

Sr. No.	Module No.	Name of Module	Credit points per semester	Periods per semester
1	EDU2105	Understanding Educational Theories – 4	4	96
2	EDU2106	Teaching BE Curriculum Subjects – 4 Myanmar English Mathematics Science Social Studies Art Morality and Civics	15 2 2 2 2 1 1 1	252 48 36 36 36 24 12 12

		Life Skills Physical Education Local Curriculum ICT	1 1 1 1	12 12 12 12
3	EDU2107	Practising Teaching/Primary and Middle - 1	5	120
4	EDU2108	Developing Reflective Practice and Essential Skills -4	1	12
		Total	**25**	**480**

Third Year EC Bachelor's degree

PRIMARY SCHOOL TRACK

Third Year Semester 1

Sr. No.	Module No.	Name of Module	Credit points per semester	Periods per semester
1	EDU3111	Applying Educational Theories/Primary - 1	4	98
2	EDU3112	Mastering Teaching BE Curriculum/Primary – 1 Myanmar English Mathematics Science Social Studies Art Morality and Civics Life Skills Physical Education Local Curriculum ICT	17 3 2 2 2 2 1 1 1 1 1 1	308 56 42 42 42 42 14 14 14 14 14 14
3	EDU3113	Teaching and Learning Professional Practice/Primary - 1	3	60
4	EDU3114	Proficiency in Reflective Practice and Essential Skills - 1	1	14
		Total	**25**	**480**

Third Year Semester 2

Sr. No.	Module No.	Name of Module	Credit points per semester	Periods per semester
1	EDU3115	Applying Educational Theories/Primary - 2	3	70
2	EDU3116	Mastering Teaching BE Curriculum/Primary – 2 Myanmar English Mathematics Science	11 1 1 1 1	220 40 30 30 30

		Social Studies Art Morality and Civics Life Skills Physical Education Local Curriculum ICT	1 1 1 1 1 1 1	30 10 10 10 10 10 10
3	EDU3117	Teaching and Learning Professional Practice/Primary - 2	8	180
4	EDU3118	Proficiency in Reflective Practice and Essential Skills - 2	1	10
		Total	**23**	**480**

MIDDLE SCHOOL TRACK

Third Year Semester 1

Sr. No.	Module No.	Name of Module	Credit points per semester	Periods per semester
1	EDU3121	Applying Educational Theories/Middle - 1	4	98
2	EDU3122	Mastering Teaching BE Curriculum/Middle – 1 Myanmar English Mathematics Electives ICT	14 2 2 2 7 1	308 42 42 42 168 14
3	EDU3123	Teaching and Learning Professional Practice/Middle - 1	3	60
4	EDU3124	Proficiency in Reflective Practice and Essential Skills - 1	1	14
		Total	**22**	**480**

Third Year Semester 2

Sr. No.	Module No.	Name of Module	Credit points per semester	Periods per semester
1	EDU3125	Applying Educational Theories/Middle - 2	3	70
2	EDU3126	Mastering Teaching BE Curriculum/Middle – 2 Myanmar English Mathematics Electives ICT	9 1 1 1 5 1	220 30 30 30 120 10
3	EDU3127	Teaching and Learning Professional Practice/Middle - 2	8	180

4	EDU3128	Proficiency in Reflective Practice and Essential Skills - 2	1	10
		Total	**21**	**480**

Fourth Year EC Bachelor's degree

PRIMARY SCHOOL TRACK

Fourth Year Semester 1

Sr. No.	Module No.	Name of Module	Credit points per semester	Periods per semester
1	EDU4111	Applying Educational Theories/Primary - 3	4	84
2	EDU4112	Mastering Teaching BE Curriculum/Primary – 3	16	264
		Myanmar	2	48
		English	2	36
		Mathematics	2	36
		Science	2	36
		Social Studies	2	36
		Art	1	12
		Morality and Civics	1	12
		Life Skills	1	12
		Physical Education	1	12
		Local Curriculum	1	12
		ICT	1	12
3	EDU4113	Teaching and Learning Professional Practice/Primary - 3	5	120
4	EDU4114	Proficiency in Reflective Practice and Essential Skills - 3	1	12
		Total	**26**	**480**

Fourth Year Semester 2

Sr. No.	Module No.	Name of Module	Credit points per semester	Periods per semester
1	EDU4115	Applying Educational Theories/Primary - 4	4	84
2	EDU4116	Mastering Teaching BE Curriculum/Primary – 4	16	264
		Myanmar	2	48
		English	2	36
		Mathematics	2	36
		Science	2	36
		Social Studies	2	36
		Art	1	12
		Morality and Civics	1	12
		Life Skills	1	12
		Physical Education	1	12

		Local Curriculum ICT	1 1	12 12
3	EDU4117	Teaching and Learning Professional Practice/Primary - 4	5	120
4	EDU4118	Proficiency in Reflective Practice and Essential Skills - 4	1	12
		Total	**26**	**480**

MIDDLE SCHOOL TRACK

Fourth Year Semester 1

Sr. No.	Module No.	Name of Module	Credit points per semester	Periods per semester
1	EDU4121	Applying Educational Theories/Middle – 3	4	84
2	EDU4122	Mastering Teaching BE Curriculum/Middle – 3 Myanmar English Mathematics Electives ICT	13 2 2 2 6 1	264 36 36 36 144 12
3	EDU4123	Teaching and Learning Professional Practice/Middle - 3	5	120
4	EDU4124	Proficiency in Reflective Practice and Essential Skills - 3	1	12
		Total	**23**	**480**

Fourth Year Semester 2

Sr. No.	Module No.	Name of Module	Credit points per semester	Periods per semester
1	EDU4125	Applying Educational Theories/Middle – 4	4	84
2	EDU4126	Mastering Teaching BE Curriculum/Middle – 4 Myanmar English Mathematics Electives ICT	13 2 2 2 6 1	264 36 36 36 144 12
3	EDU4127	Teaching and Learning Professional Practice/Middle - 4	5	120
4	EDU4128	Proficiency in Reflective Practice and Essential Skills - 4	1	12
		Total	**23**	**480**

Annex 3: Overview of strands and sub-strands[99]

- Educational Studies

Strands	Sub-strands
Introduction to Educational Studies	What is Education?
	What is teaching? What is learning? What is school?
	Understanding Educational Studies
	Educational Studies in the Education College Degree Programme
Pedagogical Theory and Practice	What is pedagogy? What is Pedagogical Content Knowledge (PCK)?
	What is pedagogical theory and practice?
	Foundational learning theories and learning theorists
	How children learn
	Bloom's Taxonomy
	Learning principles
	Learning styles
	Basic learning models and teaching strategies
	The 'Input-Process-Output' Process
	Child Development
Strategies for Effective Learning	Questioning and leading learning
	Communicating with students
	Active, interactive, and cooperative learning
	Developing autonomy and student-led learning
	Responding to need and adapting to circumstances
	Providing positive feedback
	The importance of motivation for effective learning
	The importance of student engagement
Preparation and Planning	How to identify the main ideas, related ideas and details of a reading
	Setting learning objectives, outcomes and success criteria
	Selecting teaching methods for each subject
	Teaching and learning materials
	Characteristics of good learning activities
	Designing teaching activities
	Lesson planning
Assessment	What is assessment for learning?
	Why and when to assess
	Different types of assessment
	Guiding principles of assessment for learning
	Appropriate techniques of assessment - tests
	Appropriate techniques of assessment - tools
	Types of test questions
	Importance of keeping and using accurate records for improvement of learning
	Basic statistical knowledge on educational tests and measurements
Overview of Myanmar Education Systems, Policies, and Trends	Overview of the Myanmar education system
	The Right to Education
	Why early years matter
	KG, Basic Education, and Education Curriculum Frameworks
	21st Century learners, teachers and teacher education

[99] These are the strands and sub-strands currently included in the draft Year 1 curriculum.

Educational Philosophy	Educational Philosophy and its implications for teaching expected learning outcomes
	Periods of education in Myanmar
	The art and science of teaching
Educational Psychology	Understanding Educational Psychology and how it applies to teaching
	Educational Psychology
	Educational Psychology – past and present
	Skinner and Piaget
	Motivation
	How Social-emotional well-being and mental health affect learning
	Multiple intelligences
Creating a Learning Environment	Creating a safe and secure learning environment
	Creating a stimulating and supporting learning environment
	Inclusive education
	Setting classroom routines and procedures
	The role of education technology in creating a learning environment
	Managing Students' Behaviour
Professionalism	Professional ethics of teacher and teacher code of conduct
	Teacher as reflective thinker
	The Myanmar Teacher Competency Standards Framework (TCSF)
	Why educate teachers?
	Continuous professional development
	Importance of research for continuing professional development of teachers
	Formulating your own teaching philosophy

- Myanmar

Strands	Sub-strands
Introduction to Myanmar	Overview
	Nature of Myanmar language
	Exploring Myanmar in the basic education curriculum
Knowledge about Language	Development of Native Language skills
	Development of Second Language skills
	Teaching language
Basic Skills	Listening skills
	Speaking skills
	Reading skills
	Writing skills
	Grammar and vocabulary
Listening and Speaking	Listening skills
	Speaking skills
Reading and Writing at Primary Level	Reading skills
	Learning and teaching
	Writing skills
	Learning and teaching
Literature	Knowledge of Myanmar literature
	Figurative language
	Learning and teaching Myanmar literature
Assessment	Assessment methods for primary school children

- English

Strands	Sub-strands
Introduction to English	Introduction to English
	Exploring English and the basic education curriculum
Knowledge about Language and Language Teaching	Nature of language and language learning
	Functional language
Language	Grammar
	Vocabulary
	Pronunciation
	Learning and teaching language
Listening and Speaking	Listening
	Speaking
	Learning and teaching listening and speaking
Reading and Writing at Primary Level	Reading
	Writing
	Learning and teaching reading and writing skills
Culture	The concept of culture
	Learning and teaching culture
Literature	Understanding Literature
	Learning and teaching Literature
Assessment	Approaches to assessment

- Mathematics

Strands	Sub-strands
Introduction to Mathematics	Nature and objectives of Mathematics
	Exploring Mathematics and the basic education curriculum
	Course overview
Problem Solving and Misconceptions	Enquiry-based learning
	Research in Mathematics
	Inclusive approach to teaching Mathematics
	Numeracy-Mathematics across the Subjects
Understanding Mathematics	Numbers
	Measurement
	The language of Mathematics
	Mathematics in life
How We Learn and How We Teach Mathematics	The Mathematics curriculum (Primary and middle)
	Planning learning
	Motivation
	Learning and teaching resources
	Assessment for and of learning
Mathematical Modelling and Representation	Algebra
	Geometry and trigonometry
	Time and Space/Statistics and probability
	Data handling and mathematical relations
	Planning learning
	Motivation
	Learning and teaching resources
	Assessment for and of learning

- Science

Strands	Sub-strands
Introduction to Science	Nature and objectives of Science Education
	Exploring Science and the basic education curriculum framework
	Course overview
Working Scientifically	Working scientifically: Scientific attitudes and process
	Working scientifically
Biology	Living things
	Function
	Environment
Chemistry	Matter
Physics	Earth and space
	Energy
Assessment	Summative Assessment
	Formative Assessment
Lesson plans	Lesson designing
	Micro-teaching

- Social Studies (History and Geography)

Strands	Sub-strands
Introduction to Social Studies	Nature and objectives of Social Studies
	Exploring Social Studies and the basic education curriculum
	Education Degree College Year 1 course overview
Geography	Introduction to Geography
	Human Geography
	Natural Geography
	Geography and the region
	Maps
	Learning and teaching Geography
History	Introduction to History
	Myanmar History
	Learning and teaching Myanmar History
	Appreciation of Myanmar traditional Art
Assessment	Assessment for Social Studies

- Physical Education

Strands	Sub-strands
Introduction to Physical Education	Course Overview
	Meaning of Physical Education
	Know the Basic Education Curriculum
Fundamental Movement (Fitness)	Practical skills of fundamental movement (Fitness)
	Supporting students' fundamental movement learning
	Teaching fundamental movements
Singing and Dancing	Practical skills of singing and dancing
	How to support students' learning
Group Games	Practical skills related to group games
	How to support students' learning
Competitive Games	Competitive games
Reflection on methodology and assessment	Assessment
	Theories of Physical Education
	Safety

- Life Skills

Strands	Sub-strands
Introduction to Life Skills	The nature and objective of teaching Life Skills
	Knowledge of Basic Education curriculum
	Course overview
Organizational Structure of Primary Life Skills	Grade-wise objectives of teaching Primary Life Skills
	Features of Primary Life Skills
Personal Well-being	Learning personal well-being
	Personal well-being- Apply and Reflect
Psychosocial Skills	Learning psychosocial skills
	Psychosocial skills - Apply and Reflect
Living in Harmony with Nature	Learning conversation of the natural environment and Disaster Risk Reduction (DRR)
	Conservation of the natural environment and DRR – Apply and Reflection
Assessment	Life Skills Assessment

- Art (Performing Art and Visual Art)

Strands	Sub-strands
Introduction to Art	Course overview
	Knowledge of Basic Education curriculum
Performing Arts	Singing
	Dancing
	Playing Instruments
Visual Arts	Common things in Visual Arts
	Drawing
	Handicraft
	Appreciation of Myanmar traditional Art
Reflection on teaching and learning methodology and assessment	Child development theories and pedagogy
	Assessment

- Morality and Civics

Strands	Sub-strands
Introduction to Morality and Civics	What is Morality and Civics?
	Objectives of teaching Morality and Civics
	Know the Basic Education curriculum
Social Ethics	Themes of Social Ethics
	Mutual respect in school environment
	Fairness, honesty, empathy and sympathy
	Good communication and polite behaviour
	Learning methods of primary morality and civics
Rights and Responsibility	Rights and responsibilities of teachers and students
	Rights and responsibility of a good citizen for country development
	Study the primary lessons concerning rights and responsibilities
Discipline	Learning discipline
	Practicing rules and regulations
	Study the primary lessons concerning discipline
Peaceful Living	Diversity of different ethnic culture and customs
	Value of culture and custom of different ethnics
	Living peacefully among different ethnics

	Study the primary lessons concerning peaceful living
Assessment	Assessment methods of Morality and Civics

- ICT (Information and Communication Technology)

Strands	Sub-strands
Introduction to ICT	Objectives of teaching ICT
	Teacher education curriculum related to ICT
Basic ICT Concepts	Computer system fundamentals
Computer Application	Basic functions and troubleshooting
	Word processing
	Presentation
Media and Information Literacy and Digital Citizenship	Media literacy
	Information literacy
	Internet safety and security
Internet and Communication	Introduction to Internet
	Asynchronous conferencing
ICT in education	ICT in teaching preparation and collaboration
	ICT in active teaching and learning
	ICT in assessments
	ICT in professional development
	ICT in education management

- Local Curriculum

Strands	Sub-strands
Introduction to Local Curriculum	What is Local Curriculum?
	Local Curriculum topics in Basic Education
Ethnic Language and Culture	Learning ethnic language and culture
	How to support students' learning
Agriculture	Plants and seeds
	Plant propagation
	Soils and fertilizers
	Insect-pests and methods of control
Greenness Garden School	Planning and designing a school garden
Career Skills	Learning career skills
	Teaching career skills
Home Management Skills	Cooking
	Sewing and knitting
	Event decoration
	Time management
Assessment	Assessment of Local Curriculum

- Practicum

Strands
Introduction to the Practicum
Roles and Responsibilities
Practicum Journal
Lesson Study (1)
Lesson Study (2)
Preparation for the School Visit
Reflective Practice Seminar
Classroom Observation
Assistant Teaching Experience

Primary Student Case Study

- Reflective Practice and Essential Skills

Strands	Sub-strands
Introduction to the Reflective Practice and Essential Skills	The objectives of Reflective Practice and Essential Skills
Reflective Practice Skills (1)	The Teacher Competency Standards Framework (TCSF)
	The TCSF Portfolio
Communication Skills	Verbal communication and presentation skills
	Written communication and grammar
Creative and Critical Thinking Skills	Problem-solving
	Numeracy skills
Leadership and Team-Building Skills	Leadership and community development
	Team-building
Language Proficiency	Language Proficiency
Reflective Practice Skills (2)	Focus on TCSF Domain A: Professional knowledge and understanding
	Focus on TCSF Domain B: Professional skills and practices
	Focus on TCSF Domain C: Professional values and dispositions
	Focus on TCSF Domain D: Professional growth and development
Research Skills	Navigating resources
	Reading skills
	Action research skills
ICT Skills	ICT literacy
Primary Student Case Study	ICT in the classroom

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